



Attitudes and Beliefs about Distributive Justice in China

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Attitudes and Beliefs about Distributive Justice in China

A dissertation presented

by

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to

The Department of Sociology

in partial fulfillments of the requirements

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Abstract

This dissertation examines the patterns of popular attitudes and beliefs about economic inequality and distributive justice in contemporary China. Using an interdisciplinary theoretical framework on social cognition and employing novel quantitative approaches, this dissertation challenges the widely held view that regards distributive injustice as one of the most critical sources of sociopolitical instability in today's China, and presents new empirical findings on how beliefs and opinions about distributive justice are structured in people's minds. Empirical analyses present following results.

First, it is found that for the majority of ordinary people, their belief system concerning various faces of distributive justice is constructed in a way featuring weak association, lack of coherence, and dimensionality. The results suggests that most people, even relatively ideological individuals, do not possess well-organized attitudes toward the problem of distributive injustice.

Second, there are psychosocial dispositions of conservative orientations strengthened among individuals with lower socioeconomic status. My study shows how the distribution of such dispositions among people is shaped by regional educational inequality. By examining individuals' authoritarianism and social dominance orientation, it shows how the lower level of education among low socioeconomic groups increases conservative psychological tendencies that suppress critical attitudes toward inequality, justify the system, and legitimize the hierarchical order of society.

Finally, analysis of the patterns of individuals' reasoning shows that people's ideas about inequality and distributive justice include heterogeneous and mutually conflicting ideas; individuals tend to have both conservative and liberal ideas together in their lay theoretical understanding and evaluation of inequality. This finding suggests that although people may find the large income gap and wealth inequality uncomfortable or unjust, they also tend to think that such economic disparity is inevitable and even necessary at the same time.

These three main findings suggest that it is unlikely to see an explosion of social discontent fueled by people's insuppressible anger towards the injustice of the wealth gap in the foreseeable future. These findings also provide an explanation for why income inequality is largely tolerated in many societies and why the existence of redistributive politics does not necessarily lead to the redress of distributive injustice.

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Chapter 1

Introduction

This dissertation examines popular attitudes toward distributive justice in contemporary China and the patterns of attitudinal structure and reasoning about economic inequality and redistribution. In this chapter, I explain three specific empirical, theoretical, and methodological goals for this thesis. Although these three goals deal with qualitatively different dimensions of sociological inquiry, all of them point to same underlying research questions: What are the characteristics of people's views and beliefs about various issues of distributive justice in China, a unique social environment that transitioned from state-socialism to mixed capitalism accompanied by a rapid increase in income inequality? What are the mechanisms that produce different attitudinal tendencies regarding distributive justice across individuals? And what do the patterns of popular attitudes tell us about the relationship between distributive injustice and political stability?

By pursuing these research questions, this dissertation contributes to the political-cultural sociology of attitudes and public opinion, empirical social justice research, bridging sociological and psychological approaches to inequality, and studies on Chinese society. More specific explanation will be provided in the following sections of this chapter, which focus on the empirical, theoretical, and methodological contributions of this study and explain how each empirical chapter will specifically accomplish them. In doing so, this study will provide a larger picture of how this dissertation challenges and changes our understanding of beliefs about inequality, public opinion, and the state of contemporary Chinese society.

The Case

Today's Chinese society is a gigantic blast furnace, fuming with the heat and energy of rapid social, political, economic, and cultural transformations, unprecedented institutional experiments, changing dynamics of labor relations, people's ardent yearning for upward mobility, and continuous fusion and confusion between the old and the new, at the scale of twice the population of the United States and European Union combined. These changes, happening across a country the size of a continent in both territory and population, display the extremely complicated intertwining of historical contingencies and locally embedded characteristics with huge regional variance, which provides sociologists with compelling examples for understanding the nature of institutional change, political economy, socioeconomic inequalities, social networks, and so on, making the Chinese case more than a mere comparative counterpart to the Western hemisphere.

Among the myriad changes occurring in this giant society, the problem of huge income and wealth inequality is regarded as one of the most serious. China's income inequality, measured by Gini coefficients, is ranked highly in the world, and its pace of increase is comparable only to the speed of the country's economic development. Past surveys have shown that ordinary Chinese people perceive the wealth gap between the rich and the poor as the most important social concern in the development of a "harmonious society" (23.7%) and that "wealth distribution, income disparity and social injustice" are ranked as the most important topical issues of concern to the public (90.0%) (Wang 2006). The social discontent prevalent among ordinary citizens is well reflected in the sheer number of "mass incidents," which include riots, strikes, protests, demonstrations, and so on, that happen every year: it is estimated that there were at least 180,000 mass incidents in 2010, which is twice as many as in 2006 (Sun 2011).

What does the high level of income inequality and the public's discontent mean for today's Chinese society? Aside from the fact that such a high level of income inequality is undoubtedly undesirable in and of itself, it has a particularly strong political implication. The huge number of protests is especially worrisome in the consciousness of the political leaders of the Chinese communist party since they share the historical memory of the party's political legitimacy originating in mass mobilization (Heilmann and Perry 2011; Skocpol 1979), and once the tides of mass opinion grow out of their control and people's demand for democracy surges up, the political stability of the party-state will be like a house of cards. As Ching Kwan Lee (2008) noted by quoting Barrington Moore's (1978) *Injustice: The Social Bases of Obedience and Revolt*, strong moral feelings are one of the most important causes leading people to act against social order, as evidenced in the major political struggles in history, and the large number of daily protests and public opinion polls critical of inequality are ominous signs in the eyes of political leaders in China.

In response to this popular mood, the Chinese government has made a series of efforts to reduce the income gap that are no less than transformative in terms of the direction and scope of social policies. The shift in the focus of social policy began as Hu Jiantao succeeded into power in 2002. The change basically meant redefining the development priorities from "letting some people get rich first" (Deng Xiaoping) or nurturing private enterprises (Jiang Zemin), to a series of social policy implementations under the "harmonious society" program and pro-people approach (Zheng 2010). Although this policy shift was partly caused by the *policy need* to make more investments in inland and rural areas (particularly western, central, and northeastern regions) in order to find a new engine of development and provide basic social security for the rural and urban poor, migrant workers, and laid-off state-owned enterprise workers, it was also

strongly motivated by the *political need* to gain popular support and maintain social stability for the legitimacy of the political status quo. And under this transformative policy shift, which redefined the strategy of the party-state, lie political leaders' concern that huge income disparity and distributive injustice are the key source of social discontent that may break the balance of the current "rocky stability" (Shambaugh 2000) and lead to the eruption of a "social volcano" (Whyte 2010). This assumption, the idea that income disparity is one of the most threatening conditions to social stability and one of the biggest sources of popular discontent, produced significant consequences; inequality gained the serious attention of politicians, policy makers, numerous foreign observers, and China specialists, and fell under the spotlight of mass media, all of which contributed to the recent expansion of the Chinese welfare state.

Although I agree that socioeconomic inequality in China is a serious social problem in terms of both moral and practical points of view, I argue in this thesis that there are several reasons to confidently posit that income inequality itself is unlikely to be a substantive threat to political stability and will not bring about social turmoil in the foreseeable future.

The first, somewhat simple, reason is that the level of China's inequality is actually not excessively high. The latest official Gini index reported by the China National Bureau of Statistics (2012) is 0.474. This is undoubtedly large by international comparison, but it is not difficult to find a number of other countries whose income inequality, measured by the Gini coefficient, is even higher. The Gini indices, of various sources, of the United States hover between .45 and .49, which is similar to that of China. And in most of the countries with comparable Gini indices, country-wide mass incidents provoked by income inequality per se are very rare.¹ Why, then, is the Chinese government so concerned about inequality? One reason is

¹ Even the Occupy Wall Street movement in the United States in 2011 was primarily caused by the public awareness of the unjust influence of large corporate sectors, particularly finance, on the economy, social welfare, and

that the level of inequality in China has rapidly increased over time, transforming China from one of the most equal societies up until the early 1980s to a very unequal society in just slightly over two decades, less than a generation. However, at the same time, the Chinese economy also boasted impressive economic growth throughout most of the three decades of the post-reform period; thus increasing levels of inequality have been more or less justified or masked by the national goal to make China gain the world's recognition and become a powerful nation, which have effectively fed nationalist sentiments. Another reason is, as noted above, that because the political legitimacy and moral power of the Chinese communist party came from mass mobilization and political campaigns in the past, the communist party leaders are inherently afraid of potential backlash from the mobilized mass, such as the Tiananmen Square incident, for which inequality might be a trigger. The fact that there are about 20,000 to 50,000 Internet police and Internet monitors (King, Pan, and Roberts 2013) for online censorship well reflects the government's fear. Thus, the anxiety of the party leadership is largely due to the political legitimacy problem and the historical memory of the critical role of mass support for political stability. Overall, the level of income inequality, in terms of Gini or Theil indices, is not in an extremely dangerous zone, in contrast to the anxiety of political leaders for whom any indication of social and political disorder of the empire is the biggest fear.

The second reason that income inequality is unlikely to cause substantial political inequality has to do with the distinct pattern of income inequality in China. Among many sources of inequality, rural and urban disparity constitutes the major part of the overall economic

government's decision-making process, around the time that economic downturn and massive government spending to rescue the financial entities responsible for the economic crisis overlapped. Although the movement swiftly incorporated the problem of inequality into its central issues, the direct cause of the movement was not inequality per se. The recent mass protests in Brazil are also related to the deeply rooted corruption of the political class rather than income inequality.

inequality in China, nearly 52% according to data from 2007 (Li, Luo and Sicular 2011; Guo 2010). Despite the Chinese government's continuous efforts to reduce the gap, figures from China's National Bureau of Statistics (2009) show that the urban-rural income gap is the widest since the economic reform of 1978; the gap is currently about 4.1 to 1 on average (Li, Luo and Sicular 2011)² and the largest in the world (Fan 2008). This strongly suggests that one of the key characteristics of income inequality in China is that it is largely geospatial; this produces a deep and wide "physical gulf" (Shapiro 2002) between the poor and the rich, creating a huge physical segregation between rural hinterlands and the richest upscale neighborhoods in Shanghai, Beijing, Guangzhou, Shenzhen, and other wealthy urban centers. China is a vast country, and such a physical gulf also leads to an empathy gulf, meaning that it is hard for the poor in remote areas to fathom the wellbeing of the rich or desire to emulate the lifestyle of the affluent on a daily basis. For this reason, the high level of inequality in China may not directly translate into severe aggravation of the poor as far as the regional inequality is concerned.

Thirdly, if one looks into the actual composition of mass incidents, the events that instigate people to mobilize themselves to carry out collective action are mostly related to problems of procedural, legal, and interactional injustices rather than distributive injustice. According to *Legal Daily* (2012), the breakdown of the direct causes of mass incidents in 2012 was as follows: social disputes/issues (24.4%); conflict between police and the people (22.2%); forced demolitions/removals (22.2%); conflict between officials and the people (13.3%); ethnic conflict (8.9%); environmental rights defense (8.9%). These statistics strongly suggest that, despite some inevitable overlap, the geographical "distribution of individual anger" (Abell et al. 1971; Gurr 1970) in Chinese society does not perfectly correspond to the geographical

² This does not include other social benefits enjoyed by urban residents.

distribution of wealth and resources in the country. That is, the proximate cause of individuals' grievances and frustration is derived from their direct experiences of legal, procedural, or interactional injustices that severely compromise their social, economic, or human rights (e.g., confiscation of land/property or environmental pollution without proper compensation, power abuse by and excessive rent-seeking behaviors of local government officials or township authorities, harsh labor conditions, restrictive policies towards ethnic minorities, religious persecution, lack of public participation in the government's decision-making process, etc.), rather than somewhat abstract and distant social issues such as the income gap in society.

Finally, past studies that examined Chinese social surveys on popular perceptions of inequality and distributive justice show that Chinese citizens do not express more critical attitudes when compared to citizens in other countries, such as the United States, Japan, and several West and East European countries (Whyte 2010). Moreover, it has been found that Chinese citizens possess a strong belief in merit-based ideas, stronger than East European citizens and similar to the citizens in advanced capitalist economies: people hold a strong belief that individuals' ability, talent, and hard work are the critical factors that determine whether one becomes wealthy or poor (Whyte 2010). On the other hand, rural citizens, who are in disadvantageous socioeconomic positions compared to their urban counterparts, show generally more positive and optimistic attitudes regarding various issues of distributive justice (Whyte 2010; Han 2009; Whyte and Im 2013), suggesting that the high level of rural-urban disparity is unlikely to be a source of mass uprising or social turbulence in the near future. Based on the thorough examination of the 2004 survey of inequality and distributive justice, Whyte's study (2010) concludes that there is no clear sign of "social volcano."³

³ Indeed, there are many other possible hypotheses and justifications for the claim that inequality is actually not a substantively dangerous factor to the status quo of the political leadership and Chinese society, such as China's

Aside from these reasons that that China's inequality is not in the often suggested "danger zone" (Shirk 2008), I want to add another account to support the claim that there is no social volcano waiting to be erupted by distributive injustice. It has to do with the fundamental characteristics of *attitudes*. That is, attitudes as an expression of people's evaluative perception of the social world have complex inner structures and are driven by their own distinct governing mechanisms, so that simply averaging attitudinal responses with a limited number of numerical indices can be limited or even misleading for grasping the true attitudinal structure shared among people. Without a deep understanding of the underlying mechanisms of attitudes, public opinion will remain an elusive one, as Walter Lippmann once described public opinion as a "phantom" and V.O. Key called it a "holy ghost" (Herbst 1998).

Analyzing people's attitudes, beliefs, or opinions with conventional methods such as descriptive analysis or a regression-based approach can show us some general tendencies in the public opinion. However, such methods are not particularly useful for uncovering what is actually going on under "average" attitudes or the relationship between some selected independent and dependent variables. As one of the earliest sociological studies on how attitudes can be measured noted (Thurstone 1928), "opinions are multidimensional...they cannot be represented in a linear continuum" (p. 534). For example, people's ideas about inequality and distributive justice cannot be reduced to a single numerical measure, since they are associated with a large number of related opinions and ideas that affect their evaluation of the problem of inequality. While attitudes are often regarded as "object-evaluation associations" in memory (see the seminal work of Fazio, Chen, McDonel, and Sherman [1982]), these associations do not exist

distinct traditional moral-cultural value system that affects individuals' perception of and attitudes toward inequality, the social psychological effect of rapid economic growth for nearly three decades, the more or less successful reduction of the poverty rate, and so on.

independent of other associations but comprise a larger network of attitudes, such as belief systems or cognitive and attitudinal schemata. Thus, understanding attitudes about inequality and distributive justice requires examining the associative patterns of various kinds of attitudes. Also, the network of attitudinal associations often reveals dimensional structure, which produces attitudinal ambivalence (Kruglanski and Stroebe 2005) and compartmentalized belief systems. Hence, one's attitudes are not always logically coherent and do not show a high level of internal consistency, and different and mutually conflicting views about inequality can coexist together in the same person's belief system. On the other hand, aside from such a multifaceted and multidimensional aspect, attitudes often stem from one's underlying worldview that is largely guided by people's lay theories about the social world. As a result, it can be misleading to interpret people's attitudes selectively and infer that their "real" attitudes/opinions are directly reflected in those attitudinal responses. Finally, attitudes are not only affected by social backgrounds, such as age, education, gender, income, or religion, but are often shaped by individual-level dispositional factors, which are individual-specific psychological traits and tendencies that display some degree of stability. While individuals' dispositional tendencies can significantly affect their attitudes, dispositions are hard to measure compared to objective social backgrounds, and the dynamics of attitudes are less predictable due to the somewhat elusive nature of latent dispositions.

Incorporating these issues into analysis, this dissertation tackles the problem of popular attitudes toward distributive justice in China by examining the relatively neglected features of attitudes. In order to do so, the dissertation lays out a conceptual and analytic framework for specifying the mechanisms of attitude formation and applies the framework to concrete empirical analysis. In this framework, attitudes are the joint product of association, motivation, and

reasoning (this will be more fully discussed in the next section). Based on the model, my analysis attempts to answer the following set of questions. First, how are various kinds of attitudes and beliefs about inequality and distributive justice in Chinese citizens associated with one another, and what kinds of structural properties does their belief system have? This question pertains to investigating the characteristics of associative patterns of ideas of distributive justice. The analysis will specifically map different kinds of cognitive-attitudinal schemata shared among different groups of individuals and provide us with a more comprehensive picture of the diversity of people's beliefs about distributive justice. Second, in past studies, social and political psychologists have found that there are certain motivational bases shaping one's dispositions that influence the person's attitudes and belief system. Can the attitudes of Chinese citizens toward inequality be accounted for, at least partially, by any kind of motivational tendencies? I approach this question with two kinds of psychosocial dispositions that stem from certain epistemic and existential motives, such as desire for order and structure and need for the avoidance of threat. And finally, is there any coherent and widely shared pattern of reasoning with a high level of internal consistency and clear logic that sustains people's distributive justice attitudes? Are there any concrete lay theories on economic inequality that guide people's thinking process and influence their attitudes and beliefs? To what extent do the lay theories underlying people's attitudes show consistent and logical reasoning process?

Through these series of analyses, I intend to question the assumption widely held among political leaders, policy makers, China experts, and foreign and domestic observers that regards income inequality as one of the most serious threats to social stability and to the Chinese government. With the four reasons proposed above, the findings of this dissertation will add another layer of empirical evidence to the idea that distributive injustice is unlikely to trigger a

social volcano and show why the oft-heard statement that “inequality is a major source of social unrest in China” is an unwarranted assumption.

As a final note, although China has its own idiosyncratic characteristics and distinct historical trajectory, it has been often studied together and compared to East European countries as an example of post-socialist economies. However, while studies on popular attitudes toward inequality in East European countries greatly benefited from a series of International Social Justice Project (ISJP) surveys and other cross-national surveys, such as the International Social Survey Programme (ISSP), which have produced a very large number of research papers and books on public opinion in the countries under the post-socialist transition to matured capitalist economy, studies on the Chinese case have been relatively rare due to the lack of nationally representative data sets and the sensitivity of the subject matter in the eyes of government officials, except for the studies produced by two waves of China Survey of Inequality and Distributive Justice (2004 and 2009). This dissertation expands this line of research, particularly the survey-based approach of Whyte (2010), and makes use of multiple nationally representative Chinese social surveys and contributes to the burgeoning research on inequality, poverty, and public opinion in China.

If attitudes, beliefs, and ideas are produced under distinct mechanisms need to be understood to more accurately grasp the patterns of popular mood and opinions about inequality and distributive justice, then what kind of conceptual model or framework do we need to approach the subject? The following section discusses how I deal with this problem and explains the theoretical setup of the thesis.

The Theory

The theoretical discussion of this dissertation takes a unique approach. While each of three empirical chapters finds its own theoretical niche in existing literature, the topics of the three chapters are grounded upon a larger theoretical quest of formulating the general mechanism of social action and social cognition. Since the focus of this dissertation is on the latter, particularly people's attitudes, beliefs, ideology, and ideas, I will largely confine my following discussions to that.

My theoretical approach stands in the tradition of sociological inquiry of social action, but it also pays equal attention to the problem of social cognition. It is because analyzing the characteristics and mechanisms of human cognition is simply fundamental to understanding human beings; to quote Wuthnow (2007), "the best work in sociology has always paid attention to questions about cognition" (p. 355). Reflecting the importance of the problem of cognition, the number of sociological studies influenced by the cognitive approach has continuously increased over recent years, becoming one of the central themes in the sociology of culture and generating interesting branches of discussion and debates regarding how to accurately understand and model actors' cognitive dimension (Lizardo and Strand 2010; Swidler 2003; Cerulo 2010; DiMaggio 1997; Martin 2010). Although I think the development of cognitive theories and models in sociology, which usually involves such notions as cognitive schemata, frames, repertoires, social representation and so on, is more than welcome, such an emphasis on (pure) cognition misses two other important aspects of the human mental process that operate in tandem with the cognitive process: motivation and reasoning.⁴

⁴ In this model, affect and emotion are regarded as primary forms of motivation (Petri 1986).

Based on this idea, I formulated a new synthetic model proposing that social action and cognition can be understood and explained by the effect of and mutual interaction between three embodied psychological processes: association, motivation, and reasoning. While this model tries to provide an explanation of the general mechanisms of social action and cognition, in this dissertation, I specifically focus on the channels through which attitudes, beliefs, ideas, and ideology are shaped through the lens of this model. This model does not necessarily aim to reject a particular theory or perspective but rather seeks to unify, reformulate, and integrate the seemingly unconnected dots scattered in past literature and selectively take their insights to specify the general operating mechanisms of social action and cognition. Even though this is an ambitious goal, it is far from any attempt to construct a “grand theory,” which does not have reference to empirical reality (Bourdieu 1998: 2), but is designed to carry out empirical investigations with a mechanism-based, analytic approach. Thus, this theoretical setup can be regarded as an attempt to build conceptual and analytic tools for effective empirical investigation.

In the following paragraphs, I will first discuss three major components of my theoretical framework, which are association, motivation, and reasoning (hereafter AMR), and explain why they are important for understanding the patterns of individuals’ attitudes. After then, I will briefly show how the three components constitute the AMR framework and discuss its theoretical implications. It should be emphasized that my empirical analysis does not test the whole theoretical model (AMR model), such as intricate interrelationships among association, motivation, and reasoning. The model only provides a theoretical basis for why empirical analysis of the three aspects (association, motivation, and reasoning) of individuals’ attitudes is

important, and its whole mechanism and dynamics will not be empirically examined in this thesis.

The first characteristic of individuals' attitudes that I examine is *association*. The concept of association is close to what David Hume called "association (or connexion) of ideas" (Hume 2009 [1740]); however, my model conceptualizes associations as not only involving networks of ideas but also associations between objects, affects, or routinized coordination between sensory input and motor actions. In other words, it basically refers to any kind of activated association between ideas, signs, emotions, and actions that are more or less stable as embodied mental structures (Damasio 1994). Such networks of associations provide structural patterns in cognitive, affective, and bodily domains that substantiate motivation and reasoning; motivation and reasoning rely on the structural, patterned circuitry of associative networks in their functioning. For analytic convenience, I categorize associations into two kinds of subtypes, each of which also consists of subcomponents: epistemic association (schematic and semantic; affective and attitudinal; situational) and self-association (identification and differentiation; episodic and biographical; psychomotor association). Through the two types of associative networks, a self-sustaining functional loop of associative circuitry is created, so that epistemic association is reinforced based on the patterns of shared representations in one's community, and self-association is reproduced by more or less durable identity and habits. These associations are not webs of affect-free objects. They are hot: affect, emotion, feeling, and evaluative attitudes are their core constituents. Defining association in this way allows us to incorporate a larger dimension of psychological and physiological elements into the theory of social action and cognition; it can integrate the ideas of key sociological theories (e.g., identity theory, practice and pragmatist theories, cognitive approaches, ethnomethodology, etc.) while at the same time it

easily adopt new ideas from other disciplines, such as neurosciences and cognitive, social psychology, which imparts more scientific grounds to our understanding of the sociology of mind.

In sociology, studies inspired by the socio-cognitive approach⁵ have examined the role and effect of network of associations in our mind. They include studies on the role of cognitive schema (DiMaggio 1997), discursive frames (Benford and Snow 2000), categories and boundaries (Lamont 1992, 2002; Zuckerman 1999), thought communities (Zerubavel 1997), and cultural repertoires (Tilly 1992). In Chapter 2, following this line of literature, I study the associative pattern of individuals' attitudes toward distributive justice. While an attitude is considered as association between object and evaluation in our memory, each association also forms associations with other associations, constituting a large network of attitudinal associations, a belief network, or a cognitive-attitudinal schema. Such a schema shows large variation among individuals, and I attempt to show the individual-level heterogeneity of the associative networks of distributive justice attitudes. Particularly, the heterogeneity in *contents* and *constraint* of attitudinal association will be examined.

The next component in the AMR model is *motivation*. Motivation governs the human psychology of want, need, and ought. By motivation, I refer to an underlying motivational substructure as a fundamental motivation (Baumeister and Leary 1995) and to the general unconscious tendencies in the human mind, rather than specific day-to-day motivational goals or motives hinged upon specific objects, such as work motivation or monetary incentives. Although

⁵ At the origin of the cognitive approach lies philosophical intrusion into sociology, particularly the emergence of phenomenological sociology during the 1970s, which laid the intellectual groundwork for subsequent interest in the socio-cognitive approach (see Gross 2007).

understanding the problem of human motivation is crucial in theorizing social action, sociology has paid limited attention to it for several reasons.⁶

The AMR model sheds light on the importance of motivation in understanding action and cognition and calls for a *motivational turn* in many branches in sociology. This turn is particularly necessary after the so-called cognitive turn in the 1970s, which emerged with the development of social constructionism and the neoinstitutional approach influenced by phenomenological traditions, and after the development of “culture and cognition” as a small but solid line of literature. Although cognitive approaches, including recent interest in the

⁶ Here I list four kinds of reasons, in a somewhat lengthy way. The first reason is that when motives were considered in sociology, they were mostly treated and discussed as consciously desired ends, rather than fundamental mechanisms that govern action and cognition, which can be specifically described by certain elements in a cultural value system (e.g., voluntaristic theory of action), a utilitarian framework (e.g., rational choice theory), or concrete goals in context (e.g., goal-directed behaviors). The problem of such treatment of motivation is that the first two frameworks are based on problematic assumptions about motivation, and the latter does not offer systematic knowledge about motivation. The second reason is that sociologists’ conceptualization of motivation was based on somewhat limited and unsystematic approaches and often influenced by psychoanalytic approaches that are largely ignored in today’s social sciences. For example, Parsons’ understanding of motivation, which was heavily influenced by Freudian psychoanalysis, entailed attachment-seeking, gratification-optimizing, and deprivation-minimizing tendencies, which are internal fuels for the personality and power of normative components of action (Hamilton 1992: 25; Wilburn 1969). Giddens (1984) focused on anxiety-controlling mechanisms, based on the insights of Erikson’s psychoanalytic theory, and proposed the feeling of ontological security as the key human motivation. In a somewhat connected insight, Foote (1951) proposed a theory of motivation that treats actors’ needs for identification (“appropriation of and commitment to a particular identity”; p.17) as the key motivation. In Bourdieusian framework, regularities, predictable routines, and commitment to arbitrary schemes that appear as necessary and natural (Bourdieu 1990) are what motivated actors to strive, and a habitus is constituted by “cognitive and motivating structures” (p.56). Although these theories provide useful insights for understanding human motivation, they are more or less based on theorists’ intuition or lay understanding of what drives human behaviors and do not reflect the numerous kinds of theories, typologies, and concepts of motivation developed in psychology. Third, in collectivist theories, structural approaches, and any kind of “oversocialized” views of human action, the problem of motivation is “eliminated as a theoretical concern” (Alexander 1987:14). In such approaches, individuals’ motives cannot be an adequate starting point for explaining individual behaviors, since we can explain and predict actors’ responses based on external or objective factors. This kind of view is actually widely shared among many sociologists as a basic tenet, treating actors’ motivational basis as almost a blank sheet, which is to be filled in by culture, social values, socialization, or situational forces. This led to under-theorization of the characteristics of motivation, which is problematic, since having a weak microfoundation hinders theorizing the micro-macro link of social action, and motivation is one of the most important operating mechanisms in the micro dimension. As Tallman and Gray aptly said (1990), “without a theory of motivation, we cannot explain what sparks the ‘engine of action’” (p.429). Finally, when sociologists were interested in the non-cognitive aspect of micro-mechanism, namely the affective domain, they usually focused on the effect of emotion: shared sentiments, collective effervescence, the mood of the public, intergroup antagonisms, and so on. Despite the important role of emotion, my model does not treat emotion as an independent category in its theoretical formulation, but instead regards emotion as a primary form of motivation (Petri 1986), which determines the strength and direction of intentionality dwelling in motivation.

distributive nature of cognition (cf. Zerubavel and Smith 2010), have provided groundbreaking insights into the nature of actors' subjective domain, they have largely ignored the question that needs to be addressed first, which is what drives cognition in the first place. The literature of cognitive approaches in sociology mainly looked at how culture and institutions confer cognitive lenses onto the members of society and how individuals' behavioral patterns are reproduced by such a cognitive setup cultivated in community, so actors' reflective capacity is bounded by cognitively constrained reflexive responses toward their environments. In doing so, the literature carried an implicit assumption that the source and engine of human action and cognition had cultural origins and neglected to systematically uncover their motivational sources and examine how action and cognition are shaped by motivation. A motivational turn can provide sociologists with a rich source of explanatory power for the mechanisms of human behavior, since the realm of human motivation consists of a variety of micro-level forces, such as motives for morality (Haidt 2001, 2007; Etzioni 1988), justice (Lerner 1975; Ross and Miller 2002), epistemic certainty (Kruglanski 1990; 1999), religiosity (Willer 2009), self-evaluation (Leary 2007), intergroup discrimination and prejudice (Altmeyer 1998; Pratto et al. 1994; Duckitt 2001; Duckitt and Sibley 2009), ideological orientations (Jost et al. 2003), motivated cognition and reasoning (Kunda 1990; Lodge, Milton, and Taber 2000; Bazerman and Tenbrunsel 2011), and so on. Therefore, in examining individuals' attitudes and beliefs, uncovering their motivational bases is particularly useful since it will show us the operating mechanisms that produce people's attitudes.

Based on psychological literature on motivation, my AMR model theorizes that a human's various fundamental motivations can be broadly categorized into two groups for

analytic purposes: a) cognitive and existential motivation⁷, and b) moral and relational motivation. These categories rely on past research on motivated social cognitive perspectives, formulated by Jost et al. (2003) and proposed by others (Duckitt 2001; Kruglanski 1996; Dunning 1999; Lundgren and Prisman 1998; Dijksterhuis et al. 1996).⁸ Jost et al. (2003) distinguish three kinds of motivations related to ideological orientations and political conservatism: epistemic, existential, and ideological. In a more recent work, Jost, Federico, and Napier (2009) introduce and distinguish epistemic, existential, and relational motivations. Based on their work, my model adds moral motivation (Haidt 2007) to the list and groups the four kinds of motivations into two according to the above-mentioned criteria.⁹ Chapter 3 will specifically focus on the joint effects of motivation and cognition, by focusing on two of the most widely studied psychological dispositions related to conservative ideology and attitudes, which are authoritarianism and social dominance orientation. These two psychological dispositions are regarded as stemming from individuals' existential and cognitive motives, such as "needs for order, structure, and the avoidance of uncertainty and threat" (Jost et al. 2003). (For more discussion on their motivational underpinnings, see chapter 3). Such motivational tendencies cause the two kinds of dispositions to become generally conservative ideological orientations. While numerous sociological and anthropological studies have tried to show the social

⁷ Cognitive motivation refers to the need for cognitive certainty, reducing cognitive complexity, and preference for order, structure, and closure. Existential motivation refers to the desire for security, feeling of control, and self-esteem.

⁸ The motivated social cognitive perspective focuses on the relationship between motivational underpinnings and people's ideological orientations and beliefs (Jost et al. 2003: 340).

⁹ Susan Fiske (2004) also presented a core motive model that unifies previous social psychological approaches to social motives. Her model consists of five kinds of core social motives: belonging, understanding, controlling, enhancing self, and trusting. The five kinds of motives can be adequately mapped onto my framework.

embeddedness of cognition (e.g., Tomasello 1999), this study emphasizes that human motivation is also configured in socio-cultural contexts. More discussion will be provided in Chapter 3.

While association and motivation have been studied and regarded as important factors in shaping individuals' beliefs, attitudes, and ideas, sociologists have, to large extent, been very silent about the problem of *reasoning*, even though reasoning, which is the human being's distinct mental power to think, understand, calculate, argue, and make decisions, plays an undoubtedly critical role in attitude formation. With respect to reasoning, sociologists' main focus has been to discount the role of economic, utilitarian rationality in social action, but they also developed their theories of reasoning in the context of practical reasoning (e.g., practice theory). The basic idea of practice theory is that our practical reasoning is mostly guided by routinized, durable, dispositional, and embodied habits rather than deliberative, conscious, and theoretical reasoning. In other words, sociological theories of practical reasoning are to large extent theories of practice rather than of reasoning itself. In my model, the source of the structured patterns in our habits and thoughts lies in the area of association, rather than reasoning; this is a critical distinction since it is important to distinguish the logic of reasoning (e.g., inference, deduction, causal thinking, lay theorizing, etc.) from the logic of structuration in reasoning.

In contrast to such a focus on practice theory, my framework more directly focuses on reasoning itself and contends that reasoning has a two-fold function of decision-making and sense-making (full explanation in Chapter 4). From a sociological perspective, both functions and mechanisms are based on and processed by actors' internal lay theories of their social world and experience (Furnham 1988; Ostertag 2010). Lay theory organizes one's experiences and observations into a theoretical understanding of the social world, which in large part borrows a

basic cognitive frame from common-sense reasoning (in an ethnomethodological sense: see Cicourel 1964. Also see Somers [1994]).

Although this concept of lay theory is useful for understanding the goal and process of the reasoning in people's minds, it is unclear how lay theories actually look. Studies often use interviews or experimental tests and analyze actors' narratives in order to understand the reasons and motives for their actions or their opinions about certain social issues. While the actual motives and reasons of our actions are sometimes very similar to such spoken narratives when the narratives reflect specific "inner speeches" or the "dialogical self" (Wiley 2006; Archer 2003) that occurred in an individual's mind in the course of action, the actual reasoning process at the pre-narrative stage, which is not yet captured into discursive consciousness (Giddens 1984), is usually different from the post-hoc reasons or justifications stated in verbal accounts. For example, when asked about for an opinion on distributive justice, a person will attempt to organize his/her fragments of thought and nebulous ideas into a certain coherent argument and reasonable storyline. However, the logic of latent attitude-construction is hardly the same as the logic expressed in verbal accounts, but rather stems from somewhat incoherent, messy, emotional, and illogical steps. Chapter 4 will investigate a pattern of underlying lay theories that are not channeled into discursive consciousness and examine its structural characteristics.

On the whole, the theoretical and conceptual framework of my dissertation is based on the model illustrated in Figure 1.1. The process and outcome of social cognition in individual actors are shaped by the effect of and mutual interaction between association, motivation, and reasoning as an organic, integrated flow. Again, this illustration is for explaining the underlying ideas behind the AMR model, and not something I will directly test in my empirical chapters.

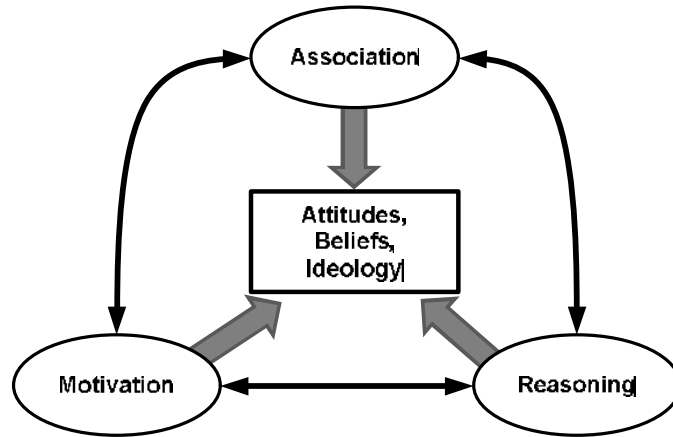


Figure 1.1 AMR Model and Attitudes, Beliefs, and Ideology

To very briefly describe this integrated model, the role of each component in this triad model can be explained as following. First, motivation provides underlying operational mechanisms for associative networks and practical reasoning, bringing about motivated cognition and motivated reasoning. The process and mechanism of the inner workings of association and reasoning can be understood by the fundamental motivational tendencies. And association provides structural patterns in cognitive, affective, and bodily domains that substantiate motivation and practical reasoning, which brings about individually (and often collectively) enacted cognitive and affective habits. Motivational and reasoning rely on the structural, patterned circuitry of associative networks in their functioning. Finally, reasoning provides the mental work to reflect and decide, by placing motivational substructure and associative networks into actual contexts and problem situations. It reinforces and reformulates associative networks and selectively controls or depresses motivational impetuses.

Past studies in sociology on people's attitudes are often based on either problematic assumptions (e.g., belief-action model or means-ends model) or approaches that are more or less accurate but whose concrete mechanisms are underspecified (e.g., practice or pragmatist models). This AMR model has a clear advantage over other sociological models of action and

cognition, since it can more concretely specify the general mechanisms of most social action and cognition. Gross (2009) proposed a pragmatist approach to overcome the inadequate theorization of social action in past theories and suggested that by conceptualizing actions as social practices, we can analytically disaggregate the chain of cause and effect into an actor's habitual response to problem situations. In spite of many merits of such a pragmatist (and practice) approach, it seems to me that it still does not provide us with a sufficiently specific model for the concrete specification of mechanisms of social action. Also, the theory does not have a well-established model of cognition and other mental processes. Moreover, a pragmatist model, at least at this stage, cannot be easily tested in empirical studies; in the pragmatist model, social action and cognition are still treated as an unexplained bundle of habitual action and thinking, cognitive schemata, durable but adaptive dispositions, creativity, and so on. Trying to solve these problems, my model specifically *unpacks the pragmatist bundle* and offers a more systematic and analytic framework to theorize and make sense of social action and social cognition, by bridging sociological, psychological, and anthropological approaches.

The following section will discuss how I will tackle each component of association, motivation, and reasoning, individually in each empirical chapter.

Methods

This thesis makes use of several novel methodological approaches to link the theoretical model to the empirical study of the cases.

Chapter 2 deals with the pattern of association among attitudes and employs two kinds of methods (i.e., Latent Class Analysis and Relational Class Analysis) that examine the relations among survey items in order to map the networks of popular beliefs and attitudes about

distributive justice. By examining such associative patterns, the two methods can group and categorize individuals according to their distinct attitudinal tendencies. The study investigates two kinds of attitudinal tendencies by differentiating *absolute similarity* and *relational similarity* of individuals' attitudes. Examining the two kinds of attitudinal similarities provides means for understanding a concrete picture of popular attitudes and beliefs about distributive justice. For the analysis, I employ latent class analysis (LCA) to measure absolute similarity and relational class analysis (RCA) to measure relational similarity. This methodological approach is useful for investigating individual-level heterogeneity in the patterns of popular beliefs, attitudes, opinions, and ideology, and can specifically reveal different subtypes of individuals who share distinct beliefs and attitudes toward economic inequality and redistribution. The joint classification of LCA and RCA allows us to subdivide individuals according to the associative structure of their beliefs about inequality in society, and regression-based analysis of the results can examine which individual-level characteristics affect such patterns. This method can overcome the limitations of other methodological approaches that treat national boundaries as the unit of analysis or that focus on the relationship between variables and ignore individual-level heterogeneity in cognitive-attitudinal schemata (e.g., factor analysis). Full explanation and the methodological implication of this analytic strategy and methodological details will be provided in Chapter 2.

Chapter 3 examines the motivational basis of attitudes and opinions and attempts to show how people's attitudes and preferences about economic redistribution policies are affected by two kinds of psychosocial dispositions (i.e., social dominance orientation (SDO) and authoritarianism). Following a widely used methodological approach in social psychological studies, I use structural equation modeling (SEM) technique to model the mechanism that

explains how macro-level backgrounds, such as regional and educational inequality, affect the distribution of people's psychosocial dispositions, which consequently produce more acquiescent and tolerant attitudes toward inequality in socioeconomically disadvantaged areas. As this chapter deals with the motivation part of the AMR model, it seeks to capture individuals' motivational basis as a latent variable and estimate its effect on political-economic attitudes. While using a conventional SEM model to test the proposed mechanism, my empirical strategy slightly differs from what is usually used in psychological social psychology. That is, while I focus on SDO and authoritarianism, I use items that reflect group- and context-specific psychosocial dispositions to construct the latent variables, rather than using items that constitute context-free, pre-dispositional, personality scales. In contrast to such sanitized, context-free "individual difference" traits in psychology, my methodological strategy employs survey items that specifically reflect people's perception of their actual environments. This approach is grounded upon the idea that psychological dispositions are the product of motivated social cognition, which is culturally shaped under the meaning structure of moral-political schemata; the dispositions stem from individuals' underlying motivated substructure manifested through the moral, cultural, and political repertoires available to them. In this way, I capture individuals' SDO and authoritarianism as culturally ascribed motivational tendencies, which has a subtle but critical difference from the individual difference approach in psychological studies. Again, more explanation will be presented in the corresponding chapter.

Finally, in Chapter 4, I take a novel approach to examine the pattern of reasoning revealed in people's distributive justice attitudes by using probabilistic graphical modeling, namely Bayesian Networks. Bayesian Network analysis basically refers to the methodological strategy that combines graphical modeling with Bayesian analysis in order to analyze and map

the probabilistic causal dependency structure among the random variables included in the analysis. Even though Bayesian Network analysis is often used to tackle causal relational patterns by using directed acyclic graph (DAG) and testing conditional independencies between variables, I do not use Bayesian Network analysis to illustrate *causal* relationships but rather to reveal individuals' "lay theories" of distributive justice and project a holistic picture of people's belief systems regarding inequality, economic redistribution, and helping the poor. Actors' reasoning process relies on their underlying lay theoretical understanding (Furnham 1988; Giddens 1984) of how the social world works, and such lay theories constitute how they view and make sense of social issues such as inequality, poverty, and redistribution. By showing the dependency structure among a variety of attitudes and beliefs related to distributive justice, this method can infer how the process of lay theorization is organized in the belief system about distributive justice. Conventional statistical analyses, such as regression-based models, are not suitable for examining the larger relationship structure among multiple variables and cannot treat models where variables can be independent and dependent variables at the same time, and path analysis or structural equation models are constructed based on the models already designed by a researcher's theoretical interest or hypothesis, rather than revealing the relationship patterns in a holistic way, and cannot solve endogeneity problems (e.g., two-way causal relationship) very well. By using this method, I can specifically show how actual connections between individual beliefs look and how such patterns are consistent with or different from the theoretical models hypothesized in scholarly literature. This method can also exhibit actors' lay theories and models of inequality and distributive justice *before* they are funneled into and unconsciously reformulated through their narratives, conscious arguments, and discursive consciousness. Thus, this method can be useful in showing the patterns of actors' underlying, pre-narrative

understandings of various dimensions of distributive justice and can clearly reveal the difference between scholarly assumptions on how people think about inequality and the actual lay theoretical models processed in actors' social cognition.

On the whole, the methods used in the three chapters apply the conceptual framework to empirical analysis and provide new ways to analyze social survey data that overcome the limitations of some past methodological approaches. These methods can also be utilized for analysis of popular attitudes and public opinion in other societies and for intergroup or cross-national comparisons.

Chapter 2

The Associative Structure of Attitudes toward Distributive Justice

This chapter investigates the associative patterns of Chinese citizens' attitudes toward inequality and distributive justice. As explained in the previous chapter, the focus of this chapter pertains to the *association* part of the AMR framework, which refers to the structural, patterned circuitry of associative networks in our mental and bodily processes that create cognitive and affective habits. In this chapter, I focus on the association of attitudes and the associative patterns of the constituents of individuals' belief system.

Cultural and political sociologists have long been interested in studying the ideational associations that construct individuals' worldview, belief system, and political attitudes. At the individual-level, association of ideas confers more or less durable structure to individuals' cognitive and affective schemata, constituting the channels of meaning-structure and an effective heuristic basis for social cognition. While the precise mechanisms and characteristics of individuals' cognitive-affective schemata are generally explored by psychologists, sociologists shed light on the patterns and effect of collective schematic structures shared by groups, cultures, and societies. Since Durkheim's idea of shared representations to Zerubavel's (1999) concept of *thought communities* or Martin's (2000) idea of multidimensional belief space, sociologists have found that individuals' cognitive schema, attitudinal tendencies, and ideological orientations are embedded within the large network of meaning and signification, where the tools for individuals' social cognition are socially distributed, so that culture shows at least a minimum level of coherence while also showing fragmented, incoherent, and dynamic patterns with heterogeneous elements (DiMaggio 1997; Zerubavel and Smith 2010; Ghazinani and Baldassarri 2011).

In this research program that examines structural association between ideas¹⁰, there are broadly two kinds of sociological inquiries: studying *contents* or *constraint*. The first approach (contents) taken by empirical studies focuses on individuals' attitudinal tendencies, policy preferences, ideological orientations, attitudes toward specific social issues, and so on. They study what specific attitudes, opinions, or ideas individuals have. For example, they study what percentage of population is liberal, supports same sex marriage, or listens to classical music. Most sociological studies that analyze public opinion or individuals' attitudes fall within this domain. The second approach is shown in the studies that are often influenced by Converse's classic work (1964) that defines ideology as attitudinal constraint, which particularly focuses on the *formal* properties of attitudinal structure, belief systems, or opinion polarization at the aggregate-level.¹¹ Rather than looking at what individuals believe or how they think of particular social issues, these studies focus on the structural properties of social organization of beliefs and attitudes. While there could be various ways to recognize and diagnose the structural properties of aggregate-level distribution of attitudes, I contend that the fundamental insight or idea of such formal analysis can be represented by the term *constraint*, as Martin pointed out by using Durkheim's ideas (see Martin 2002:865).

¹⁰ For example, analysis of cultural and symbolic/semiotic codes (Cerulo 1995; Sewell 2005), anthropological analysis of culture and cognitive anthropology (Douglas 1986; D'Andrade 1995), 'sociology of associations' such as actor-network theory (Latour 2005), studies on categorization and boundary making (Lamont 2002), mechanisms of social valuation (Zuckerman 2012; Lamont 2012), the role of shared repertoires in social movements and collective action (Tilly 1986; McAdam, Tarrow, and Tilly 2001), and more broadly, social constructionist (Berger and Luckmann 1966) and social constructivist (Vygotsky 1978) perspectives.

¹¹ For example, Martin's (2002) studies multidimensional belief space in society by focusing on its two kinds of attributes of consensus and tightness. In a related domain, a number of studies also have tried to analyze and detect the patterns of polarization (i.e., bipolarization) in public opinion. For example, overcoming the limitation of past studies that mainly looked at the distribution of single issues, Baldassarri and Gelman (2008) investigated public opinion polarization by examining bivariate correlation between pairs of issues and between issues and partisanship/ideology. Both studies mainly focus on the formal properties of public opinion or belief system rather than looking at the specific contents of individuals' opinions and attitudes.

In studying patterns of association in individuals' attitudes toward distributive justice in this chapter, I present a research framework that recognizes these two domains, namely contents and constraint, as the two most important faces of attitudinal association. While various methods have been proposed to analyze the patterns of attitudinal association in past studies¹², most of them focus on only one of these two aspects. The limitation of such conventional approaches is that it cannot recognize or show the full, comprehensive picture of belief system in society.

By using two methodological tools together, which will be introduced later in detail, this chapter examines both contents and constraint of popular attitudes toward distributive justice and, at the same time, show the individual-level heterogeneity in contents and constraint to overcome the limitations of past studies and concretely map the social contour of attitudes toward distributive justice.

The reason why this kind of approach is necessary for studying individuals' perception of and attitudes toward distributive justice is because the literature of empirical social justice research has shown that justice beliefs and attitudes show multidimensional aspect. Although the concept of justice is generally associated with an abstract image of universal and timeless principles and moral, philosophical, and normative approaches to justice have often tackled the problem of justice from such a perspective, studies of people's actual conceptions of distributive justice show that it does not obey a certain universal or absolute axiomatic rule. The accumulated body of literature in empirical social justice research on perception and beliefs about distributive justice has shown that individual and group-level heterogeneity and contextual

¹² For example, Goldberg's (2011) relational class analysis can be used for uncovering schematic associations; latent class analysis (LCA) and principal component analysis (PCA; Carmines and Stimson 1982) can be utilized for investigating attitudinal associations. Other methods also have been proposed as methodological tools for analyzing the associative networks, such as cultural domain analysis (Borgatti 1994), algebraic representations or entropic measures for formal analysis of beliefs and attitudes (Martin and Wiley 1999; Martin 2002), correlational constraints (Baldassarri and Gelman 2008), or cultural network analysis (Sieck 2010). See Mohr (1998) for other formal techniques useful for analyzing the structural patterns of cultural dimensions.

contingency are manifested in people's conceptions and perceptions of social justice (Deutsch 1975, 1985; Miller 1999; Walzer 1983; Wegener and Liebig 1995a, 1995b; Aalberg 2003; Törnblom 1992; Folger 1986; Reis 1986).

Such past studies suggest that one of the key tasks for empirically examining the perception and beliefs about distributive justice is to concretely map the multifaceted and multidimensional structure of justice beliefs and ideas. Nevertheless, there are some important questions that past studies have paid limited attention to in order to understand the patterns of distributive justice beliefs. For example, to what extent do individuals in a same society share similar or different schematic understandings on distributive justice issues? If some people possess more sophisticated and ideological views about distributive justice than other people, then what are the characteristics of their beliefs and what are their demographic backgrounds? Aside from egalitarian or meritocratic ideologies, are there other kinds of attitudinal tendencies in people's ideas about various issues of inequality and redistribution?

To answer these questions, this chapter will investigate the patterns of distributive justice beliefs and attitudes using a nationally representative social survey on people's attitudes toward socioeconomic inequality. As explained earlier, to make a more comprehensive analysis of the multidimensional aspect of justice beliefs, I will analyze people's general distributive justice attitudes (contents) and show the relational patterns among various distributive justice ideas and attitudes (constraint). By inspecting the relational patterns of distributive justice beliefs, we can have a clearer understanding of how people perceive various issues of distributive justice and how such thinking is characterized by the associative structure of their beliefs and attitudes.

Empirically, this study focuses on the case of contemporary China, the country whose high level of socioeconomic inequality has been regarded as one of the biggest sources of social

discontent. Numerous Chinese policy makers, scholars, and foreign observers have asserted that the significance of distributive injustice in China will possibly result in social turbulence that would hurt the political stability and legitimacy of the communist party-state. However, such diagnoses are often not grounded upon specific examination and mapping of Chinese people's actual cognitive and attitudinal schemata regarding diverse issues of distributive injustice. By employing a novel analytic strategy to concretely map popular ideas and beliefs about economic inequality and redistribution, this study will provide new evidence for and insight into the relationship between the high level of economic inequality and public opinion in contemporary Chinese society.

The organization of this chapter is as follows. First, I will overview major theories and studies of distributive justice and discuss how this study can specifically reveal the multiplicity and individual-level heterogeneity of justice schema that past studies have emphasized but failed to fully capture. I will then discuss the sources and characteristics of distributive justice and stratification beliefs in China. Next, I will provide explanation for the analytic strategy and methods used in this chapter to explore the patterns of justice beliefs. The empirical analysis employs two kinds of classification strategies (i.e., relational class analysis and latent class analysis) to group individuals according to their distinct patterns of distributive justice perception and beliefs. Using the two methods, I will examine the heterogeneous patterns of people's distributive justice beliefs.

This study makes contributions in the following areas. First, it presents a new way to empirically study people's actual conception of justice. Although a number of studies have emphasized the multidimensional aspect of distributive justice principles and beliefs, they have had limited tools to uncover individuals' concrete schematic structure. Taking a novel analytic

approach, this study offers to the existing literature new empirical evidence that provides a richer picture of people's justice beliefs and shows individual-level determinants of such a belief structure. Second, this study looks at both contents and constraint in popular attitudes, which presents more concrete mapping of attitudinal structure. Furthermore, to overcome the limitations of past studies that did not fully examine the individual-level heterogeneity of distributive justice ideas and beliefs and mainly looked at the relationship between variables rather than focusing on persons, this study inspects the heterogeneous associative patterns among attitudes across different groups of individuals, which sheds light on distinct kinds of distributive justice beliefs at the individual level. Third, this study contributes to the studies on popular attitudes toward distributive justice in post-socialist countries, whose political-economic transition from state socialism to capitalism created unique social environments for citizens in forming ideas about socioeconomic inequality. In this line of literature, while research on Eastern European countries greatly benefited from multiple waves of International Social Justice Project (ISJP) surveys that led to a large number of empirical studies, study on Chinese citizens' distributive justice beliefs relied on only a limited number of nationally representative social surveys on inequality and distributive justice (Whyte, 2010; Whyte and Han, 2008). My study provides new empirical evidence to the field by taking advantage of the ISSP 2009 survey of social inequality module, which includes China in its sample for the first time.

Multiplexity of Distributive Justice Principles

One of the most important sources of heterogeneity in beliefs about distributive justice is the multidimensional nature of distributive justice principles. Early studies took a narrow view of understanding the problem of distributive justice and focused on the role of equity and

economic utility. Homans (1961) and Blau (1964), for example, were the early sociologists who dealt with the problem of distributive justice with such a perspective. Based on exchange theory, both Homans and Blau approached distributive justice as fairness in the ratio between cost and reward for participants in an exchange. Such insight is consistent with the view of equity theory, which contends that rewards should be exactly distributed among participants in proportion to each member's contribution to the outcome. These initial studies in the 1960s and the 1970s, mostly based on a more or less unidimensional utilitarian framework, played an important role for setting the stage of distributive justice research. However, a number of studies immediately followed that pointed out that such a view is too narrow and that the sources and principles of distributive justice are much more vast and multidimensional than what the early theories had described. Such studies detailed categorical typologies of justice principles and their situational contingency (Folger, 1986; Leventhal et al., 1980; Reis, 1986; Törnblom, 1992).

One of the most influential studies in the multi-principle approach is the seminal work of Deutsch (1975, 1985), who distinguished three kinds of distributive justice principles: equity, equality, and need. Such distinctions can be also found in other theoretical and empirical studies. For instance, Miller (1999) discussed principles of desert, need, and equality as the pluralistic frames of justice. Likewise, Walzer (1983) proposed three distributive principles of free exchange, desert, and need, rejecting universal or external claims for principles of justice, and argued that the meaning of justice is always shaped by local accounts and shared understandings of meaning of social goods. Aalberg (2003) posited five kinds of theoretical approaches to principles of distributive justice: principles of equity, principles of utility, Rawls' difference principle, principles of need, and principles of equality. Empirical studies tested the effect of individuals' different justice principles on their political-economic attitudes such as preference

for welfare policy (Lewin-Epstein, Kaplan, and Levanon, 2003). The multi-principle approach to justice has been also studied in terms of finding “justice cosmologies” (Wegener and Liebig, 1995b) and mapping primary and secondary justice ideologies (Wegener and Liebig, 1991). On the other hand, aside from these normative, ideological, or deontological justice principles, self-interest has been recognized as a powerful frame that determines one’s ideas about distributive justice. The self-interest thesis contends that people’s attitudes toward distributive justice stem from one’s socioeconomic position and depend on whether one benefits from existing stratification system (Mackenzie, 1973, Robinson and Bell, 1978; Svallfors, 1991).

Such multidimensionality is not a characteristic peculiar to justice beliefs. As Fiske wrote, attitudes in general often reveal complicated configurations since they are cognitively and evaluatively complex (Fiske, 2010: 227). Cognitively complex, because cognitive components have multiple dimensions (e.g. desert, equity, need, and equality), and evaluatively complex, since people’s attitudes are affected by positive and negative affect systems, which produce attitudinal ambivalence. Like other attitudes, justice beliefs and attitudes also exhibit such complexity in its manifestation.

Rethinking the Multiplexity of Justice: A Relational Approach

If justice beliefs and attitudes are multidimensional and there is more than one distributive criterion, then how do people carry such multiple principles? How does each principle form relations with other principles in individuals’ belief systems? And how can we uncover and examine different kinds of belief systems shared among individuals?

Although these questions are critical in understanding the patterns of justice beliefs and attitudes, only a limited number of studies have explicitly tackled such issues. Some studies

highlighted attitudinal incoherency and inconsistency in beliefs about inequality. For example, past studies on Eastern European countries (Kluegel, Mason, and Wegener, 1995; Smith and Matějů, 2011) showed how popular attitudes about distributive justice had changed after the dismantling of the Soviet bloc, and argued that people in those countries had much less internal value consistency compared to their Western counterparts. Such an argument is based on the findings that Eastern Europeans in the early 1990s desired *both* the meritocratic system, expecting that it will bring capitalist prosperity to their countries, and the socioeconomic security that their socialist regimes provided (Kluegel et al., 1995; Smith and Matějů, 2011). Such a description of low internal value consistency may be fair but there are two lingering issues there that require further investigation.

The first issue, which also applies to other cross-national studies in general, has to do with “methodological nationalism” (Wimmer and Schiller 2002; Bonikowski 2011). Because many of the past studies on beliefs about inequality relied on cross-national surveys, such as ISJP and ISSP, even though they made interesting cross-national comparisons of popular attitudinal tendencies (Andreß and Heien, 2001; Arts and Gelissen, 2001), they essentially treated a country as a basic unit whose citizens share a common distributive justice schema. Most of the past studies that looked into cultural and ideological variations in justice schema used countries as the boundary that distinguishes between different styles of sense-making of distributive justice ideas. Indeed, some of the studies attempted to capture individual-level differences by examining the effect of demographic variables in regression-based analysis. Although such an analytic approach can show the relationship between certain explanatory variables and distributive justice attitudes, it is not suitable for mapping a concrete picture of people’s justice beliefs within

societies or examining different styles of associations among beliefs and attitudes across different groups of individuals.

The second issue has to do with how we define internal value consistency. Although holding somewhat contradictory ideas together (e.g., a belief in meritocracy and a demand for social protection) may seem to lack value consistency, if such a distinctive belief is *collectively shared* among a large number of people, then we can claim that their belief system exhibits consistency in its own distinctive way. I contend that internal value consistency cannot be judged based on a priori assumptions on whether the ideological components that constitute people's belief system are logically integrated among themselves, but on whether the components exhibit strong associations among themselves that construct a meaningful cognitive-attitudinal schema. In this viewpoint, what matters is not whether people's belief systems are inherently logical or not, but rather what specific distributive justice beliefs exhibit significant, stable associations with one another. And finding different kinds of associative patterns among people allows us to more clearly understand the multiplexity of justice beliefs (DiMaggio 1997).

In order to tackle this problem of multiplexity and heterogeneity of justice belief systems, I take a relational approach as an analytic strategy to map the structural patterns of people's justice beliefs and identify individual-level ideational heterogeneity. The idea behind this relational approach comes from the cultural sociological perspective that views meaning is relational and meaning springs from relational contexts (DiMaggio 1997; Mohr and Duquenne 1997; Yeung 2005). The relational nature of meaning or meaning system is important for attitudes regarding distributive justice. For example, even when two individuals show same attitudes toward a survey question "Do you think differences income in this country is too large?," the substantive meaning or affect associated with each individual's response to that

question would be different, if they have different opinions about other issues such as “the government should reduce the income gap” or “Coming from a wealthy family is very important for getting ahead.” As individual attitude is embedded in a larger network of attitudinal association in one’s mental process, such a web of association among attitudes needs to be considered as a whole in order to accurately map people’s belief system. A more fundamental reason why the relational approach is appropriate is related to the basic properties of attitudes. Attitudes are understood as “object evaluations stored in memory” (Judd et al., 1991), which come from a very large network of cognitive, affective, and behavioral correlates. Studying the multiplexity and heterogeneity of justice attitudes, therefore, requires analyzing the structural and relational configuration formed among multiple attitudes.

This strategy requires a specific understanding of what kind of heterogeneity needs to be identified. In this study, my relational approach to study belief heterogeneity will be discussed in the context of analyzing survey data, the most widely used method to empirically investigate individuals’ justice beliefs. Specifically, there are two kinds of heterogeneity that my study will concentrate on.

Two Kinds of Attitudinal Heterogeneity

The first kind of heterogeneity is about different ideological orientations of individuals, which can be revealed by finding groups of people who have similar ideas and attitudes. In survey analysis, such groups can be found by examining the overall attitudinal similarity between individuals. If the difference is smaller, then the two can be categorized into a same group. The attitudinal similarity is captured by examining the contingency table of survey items, whose rows and columns are possible sets of associations of individual responses and each cell

presents the frequency of subjects who gave the particular response. Such a table shows how the association of variables is actually manifested in each individual's responses, and parameter estimation solutions can detect underlying latent attitudinal traits that explain such associative patterns. The key purpose of this approach is to examine the relations among variables to identify different latent traits or groups, whose members share similar beliefs and attitudes. In short, this method focuses on the *absolute similarity* of individuals' attitudes. The empirical analysis will use latent class analysis (LCA) to investigate this type of attitudinal heterogeneity. To return to my earlier discussion on contents versus constraint, this type of analysis is mainly useful for showing the contents of individuals' attitudes (while it can also show constraint in a somewhat different sense).

The second kind of heterogeneity focuses on the relational pattern itself among attitudes rather than their absolute similarity. While the first method concentrated on the extent to which subjects make substantively similar responses, that is, whether they agree or disagree similarly on various issues, the second method aims to find subtypes of individuals who share a similar schematic frame in understanding the issues, which is reflected in the relational structure in their responses. Suppose there are two kinds of political issues, X and Y. Individual A, who strongly supports X and opposes Y, has opposite attitudes to another person B, who strongly opposes X and supports Y. However, their attitudinal frame can be reduced to a same schematic dimension, where issue X and issue Y are opposing elements to each other. For instance, let us call belief in a meritocratic system as X and preference for income redistribution as Y. Individuals A and B disagree with each other on both issues, but they show a schematically similar way of approaching the issue of merit and redistribution. Consider a person C who supports both merit-based ideology (X) and more income redistribution (Y). The response similarity (or Euclidian

distance) between A and C is greater (shorter) than that between A and B. However, in terms of how issues X and Y are interrelated with each other, A and B can be grouped together due to their shared schematic understanding, in which X and Y are opposing elements, while C shows different understanding. This insight can be more clearly illustrated by imagining a belief network, which consists of justice beliefs/attitudes as nodes and the strength of relationship among them as ties. This belief network can be characterized by what justice beliefs/attitudes are clustered together by strong ties (i.e. strong, significant correlations) and what are separated from others (i.e. no ties or weak correlations) as the structural properties of the network. And the configuration of such a belief network would look differently across different groups of individuals. In contrast to the first method that focuses on absolute similarity of attitudes, this method inspects *relational similarity*. A methodological tool is developed to analyze this kind of relational patterns as relational class analysis (RCA) (Goldberg, 2011), which will be explained in more detail in the methods section. This methodological approach is particularly useful for tackling the problem of the properties of structural constraint of attitudinal association.

In order to fully understand the multiplexity of justice beliefs, these two kinds of belief heterogeneity needs to be specifically examined. If only absolute similarity is considered, heterogeneity in meaning structure will be overlooked and the result will be misinterpreted as if every individual shares common schematic understanding of ideas in a given social domain. On the contrary, if only relationality similarity is considered, then it will show the ideational heterogeneity in people's belief system but fail to show their actual attitudinal contents (e.g., conservatives, liberals, egalitarians, etc.).

In the following, I will turn to the empirical case by discussing distributive justice and stratification beliefs in China. Then, analytic strategy for investigating the two kinds of justice belief heterogeneity and results will be introduced.

Distributive Justice and Stratification Beliefs in China

Comparative studies of distributive justice beliefs have shown that people's distributive justice criteria and beliefs are affected by social norms (Nisan, 1984; Wegener and Liebig, 1995a) and the dominant ideology of society (Kluegel and Smith, 1986), since people use consensually held referent structures and notions of justice principles (d'Anjou, Stejin, and Van Aarsen, 1995). Studies found that individuals' beliefs about inequality and attitudes toward redistribution show meaningful difference across different nations and welfare regimes (Arts and Gelissen, 2001; Kelley and Evans, 1993). Country-specific dominant ideologies are also examined in past studies. For example, it is repeatedly found that Americans tend to emphasize the principle of merit and individualist attribution as their dominant ideology (Feagin, 1975; Huber and Form, 1973; Kluegel and Smith, 1986; Rimlinger, 1971).

In this context, one can ask if there is any sort of "Chinese exceptionalism" in beliefs and attitudes about inequality and redistribution. A common view on this question often turns to traditional Chinese values and finds relevant components particularly from Confucian ethics and value systems. Emphasis on hard work, persistence, thrift, industry, bearing hardships, and education are considered essential cultural codes in Confucian culture (Hofstede and Bond, 2001), which alludes to the similar spirit underpinning meritocratic ideology. It is also often pointed out that such a cultural emphasis on hard work and education stems from China's long tradition of a merit-based civil examination system that allowed a moderate level of upward

social mobility for ordinary citizens. Unlike Western societies where social status change was traditionally largely ascriptive and social mobility was restricted, the chances for climbing up the social ladder through passing the national or provincial civil-service exam was surprisingly high in imperial China, as shown by Ping-ti Ho's (1962) study on the fluidity of the status system in the Ming and Qing dynasties. Moreover, the republican revolution (1911) at the turn of the 20th century significantly eliminated traditional inherited status barriers and brought about societal emphasis on the pursuit of new opportunities (Whyte, 2010:15).

A question arises: do today's Chinese citizens also hold such beliefs in individuals' merit and efforts? Empirical evidence seems to positively weigh toward the idea. From qualitative interviews in a working-class neighborhood, Lee (2009) found that working-class respondents, despite mixed opinions, show widespread acceptance of merit, desert, and efficiency principles in evaluating inequality. Quantitative, cross-national studies based on survey analysis show similar results. Based on social justice surveys, Whyte (2010) and Whyte and Han (2008) found that Chinese citizens hold relatively positive attitudes toward the role of individual merit, hard work, in explaining the cause of wealth and poverty compared to citizens in many other countries (i.e., Eastern and Western European countries, the United States, and Japan).

However, focusing on belief in hard work, education, and opportunities for upward mobility does not fully capture complex dimensions of Chinese views on inequality. Traditionally, the wealth-poverty dimension was not the most important axis in the Chinese scheme of social differentiation, compared to other dimensions such as occupational status, rulers and ruled, and free and unfree (Kuhn, 1984). That is, in traditional society, most people were poor, and middle and upper strata were very narrow in the socioeconomic structure that resembles an "onion dome" configuration, and poverty and wealth themselves were not

perceived as representation of injustice (Kuhn, 1984: 24). Another important underlying view was powerful fatalism regarding how wealth is distributed among people, even though ordinary people strived for ameliorating their living conditions through hard labor and perseverance. There are also other kinds of cultural ideas ingrained in traditional Chinese society. An important moral-cultural element is latent egalitarianism that pursues collective harmony and stability, which functions as a cultural anchor in Chinese society. This egalitarianism creates a social space that values moral inclination toward self-sacrifice and a sense of collective responsibility. Pursuit of equality is particularly emphasized in local contexts (Wang, 2008), featuring the high level of social and economic equality in rural collectives and urban work units until they were largely dismantled by agricultural reforms and privatization throughout the post-reform period.

Aside from these traditional cultural backgrounds, changing social and economic conditions in the rapidly developing society adds additional layers of complexity to Chinese views of inequality and distributive justice. Three decades of hectic national economic development has brought about individuals' pursuit for material success and tolerance toward income inequality. Simultaneously, optimism for upward mobility has been countered by popular frustration and discontent with economic polarization and rising unemployment rates. Additionally, expansion of new social opportunities that previous generations could not envisage and development of materialist consumption culture led to the enhancement of the "enterprising self" (Rose, 2007) and the "desiring self" (Rofel, 2007). These changes have motivated Chinese individuals to seek self-development and personal desires, and perceive Chinese society as a new post-socialist country flourishing with "autonomous and responsible individual actors" (Yan, 2011: 4).

These various old and new factors that shape beliefs about inequality and stratification suggest that we would find diverse styles of belief structure among Chinese citizens. It is also expected that multidimensionality and heterogeneity would characterize people's belief systems regarding distributive justice.

Analytic Strategy

Methodological Approach: Relational and Latent Class Analysis

This chapter takes a methodological approach that examines the ideational heterogeneity among people and finds subtypes of individuals that share distinct attitudinal patterns. In terms of survey analysis, such a methodological approach attempts to examine how variables are interrelated with one another and shows which respondents can be grouped together based on the relational pattern among the variables.

To achieve this goal, I employ two kinds of methods useful for showing individual-level heterogeneity in people's attitudes and beliefs: relational class analysis (RCA) and latent class analysis (LCA). These methods can reveal the two kinds of attitudinal heterogeneity explained in the previous section.

First, I use RCA, developed by Goldberg (2011), a method that detects subgroups in the population that share distinctive patterns of beliefs and attitudes. In RCA, the patterns are defined by the structural pattern of relationships among individual survey items employed in the analysis. The relationship is characterized by the strength and statistical significance of relationship between each pair of issues. The logic and process of RCA is as follows. First, it calculates the distance between two variables for one respondent (i.e., within-person distance between variables) and then computes the difference between the distance and the within-person

distance another respondent (i.e., between-person relational distance). This process is repeated for every pair of variables, and the average of relational distance for the two respondents is produced as a summary value of “relationality.” It is important to note that the focus is not on the similarity of attitudes but on the similarity of relationships between attitudes. This measure of relationality is computed for every pair of respondents. It produces a respondent-by-respondent relationality matrix, which shows the relational similarity between all respondents in the survey.

Second, using a bootstrapping method, statistically insignificant ($\alpha \geq 0.05$) relationality values are removed and set to zero. This is because RCA treats the matrix as a network. If the matrix has no missing values/cells, then the network will be too dense to show meaningful properties. By removing statistically insignificant values, we can have a sparser matrix that reveals useful information more clearly. The remaining statistically significant cells are normalized and transformed to absolute values. The result is a matrix that represents the network of relationality, which consists of respondents (i.e., columns and rows in the matrix; vertices in networks) and their relational similarity (i.e., cells in the matrix; link weights in networks).

Finally, RCA detects subgroups in the network by using a community detection algorithm (i.e., modularity optimization using eigenvalues; see Newman, 2006; Newman and Girvan, 2004), which finds cohesive clusters of individuals and classifies them into subgroups. See Appendix A for mathematical formulae and other technical details of RCA. (See Goldberg, 2011 for full explanation on the method.) Using RCA, I can show different kinds of distributive justice schemata shared by different subgroups in Chinese society and examine what individual-level characteristics are associated with such a pattern.

As the next level of analysis, I use LCA to examine a different aspect of individual-level heterogeneity in distributive justice beliefs and attitudes. Whereas RCA clusters respondents based on the similarity in the relationship between beliefs/attitudes, LCA finds subgroups by examining the similarity in absolute responses. Based on respondents' answers to survey items, it classifies respondents according to their latent attitudinal or behavioral traits, producing a categorical variable that consists of a set of latent classes and estimating the probability of class membership of each respondent. This latent variable is an unobserved typology that explains the patterns of association between observed variables. In some aspect, LCA is similar to traditional factor analysis, as both are latent variable models, but LCA has several different characteristics that distinguish itself from factor analysis; one particularly important feature is about the difference between variable-oriented approaches (factor analysis) and person-oriented approaches (LCA) (Bergman and Magnusson, 1997). Variable-oriented approaches like factor analysis are interested in finding the relationship between variables that are generalizable to all individuals. In such an approach, the focus is on identifying the general, nomothetic pattern of factor structure based on its linear relationship with individual variables (Collins and Lanze, 2010: 8). In contrast, person-oriented approaches, such as LCA and RCA, are interested in differences among individuals and focus on finding subtypes of individuals that show similar attitudes or belief systems. Using the person-oriented approach, therefore, the problem of assuming a same factor structure for all individuals (e.g., methodological nationalism) can be avoided.

In the following analysis, I first run RCA to analyze people's underlying belief systems and then apply LCA to find different types of individuals with different latent attitudes. Then, I examine how the two kinds of "classes" produced by RCA and LCA jointly reveal the subtypes

of individuals that show distinct schematic and attitudinal patterns regarding distributive justice. Taking advantage of these two methods allows us to investigate the multidimensional structure of distributive justice principles and its individual-level heterogeneity more concretely than past studies.¹³

Data and variables

The empirical study uses the Chinese sample in the 2009 wave of International Social Survey Program (ISSP) Social Inequality IV survey. The survey was conducted as part of the Chinese General Social Survey (CGSS). The Chinese sample in ISSP 2009 data (Inequality module) comes from Chinese General Social Survey 2008 (<http://www.chinagss.org>), which used multi-stage stratified sampling design using four major strata and used street mapping technique to sample households in communities. (N=6,000)

The ISSP Social Inequality module covers a wide variety of issues regarding people's opinions about their own salary, feeling of a just payment, the level of income inequality in the respondent's country, government's responsibility to reduce income inequality and protect economically vulnerable population, taxes for people with high income, importance of family background, hard work, discrimination, and corruption for success in society, and so on. My

¹³ The differences between RCA/LCA and other statistical methods are as following. First, RCA and LCA are different from standard regression analysis primarily because they examine the structure of associations among distinct attitudes and, based on that, *detect subgroups* in population that show qualitatively different ideational/attitudinal patterns, rather than examining the effect of independent variables on dependent variable (regression). On the other hand, RCA and LCA are different from factor analysis particularly because while factor analysis produces continuous latent scales where all individuals can be arrayed, RCA and LCA produce qualitatively different (discrete) classes/groups. While the aim of factor analysis is to find a latent factor structure that is commonly shared by all individuals, person-oriented classificatory methods such as LCA and RCA more are focused on finding qualitatively different subgroups. In some sense, LCA is similar with cluster analysis in the sense that both of them show how cases can be clustered into groups, but because cluster analysis is usually not based on a statistical model, it does not provide information about statistical, probability structure of latent classes (ex. the probability that an individual belongs to one class over another), which LCA is capable to do.

analysis uses twenty survey items pertaining to various issues of inequality and redistribution, which are categorized into three groups based on discussions in past literature on different dimensions of distributive justice. (See Appendix B for the full list of questions used in the analysis.)

The first group is four survey items related to respondents' self-interest and self-perception regarding distributive justice. Although self-interest or self-perception is sometimes not categorized as one of the "justice principles" in literature, I decided to include it here because of the goal of this research. If we are just interested in individuals' belief system independent of their own socioeconomic situations or experiences, then we do not need to consider individuals' perception or feelings of injustice that stem from their own specific life situation. However, because one of the basic goals of this research is to find the size of subgroup in population that shows strong resentments toward distributive injustice in society AND strong frustration with their own socioeconomic situation (ex. unjust pay, low socioeconomic status), individuals' self-perception and self-interest regarding distributive justice need to be considered in examining the structure of attitudinal association. Many reports on popular protests against inequality show that protestors have specific demands related to the specific context of their lives and have also direct, negative experiences that trigger their feeling of injustice that make them participate in social protests, potentially at the expense of their own safety. So the underlying assumption here is that if there is only a very weak or no meaningful relationship between attitudes toward inequality in society and perception of one's distributive justice situation, it would be hard to expect serious social unrest or protests among them. Based on this idea, survey items that reflect people's attitudes toward their income and socioeconomic position are included, such as "Do you

think your pay is just?,” “I earn more/less than I deserve” and “Below is a scale that runs from top to bottom. Where would you put yourself now on this scale?”

The second group of eight questions pertains to the distributive justice principle of equity and merit discussed in past literature. The questions in this group ask to what extent economic success in society is achieved by legitimate means. Some sample questions are: “To get ahead, how important is hard work?” “To get ahead, how important is coming from a wealthy family?” and “To get all the way to the top in the country today, you have to be corrupt.”

The final group of eight survey items is broadly related to distributive justice principles of equality and need, which are based on normative points of views that associate equality with moral principles (Alwin, 1999; Lewin-Epstein, Kaplan, and Levanon, 2003). Although equality and need are often treated as conceptually distinct moral or justice principles, they are closely entwined with each other in individuals’ practical responses and it is, thus, very difficult to disentangle one from another based on survey responses. Therefore, I include diverse kinds of survey items that broadly deal with the problem of equality and need into this category. Some sample questions are: “It is the responsibility of the government to reduce income differences.” “Differences in income in the country are too large.” “The government should provide a decent standard of living for the unemployed.”

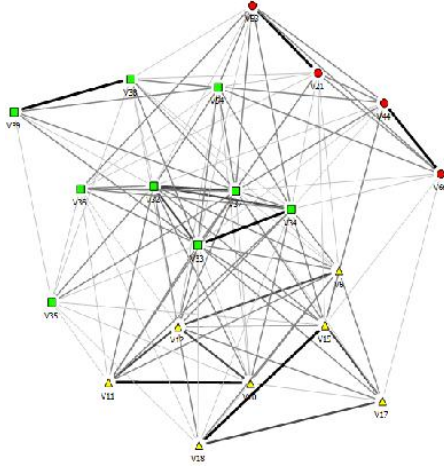
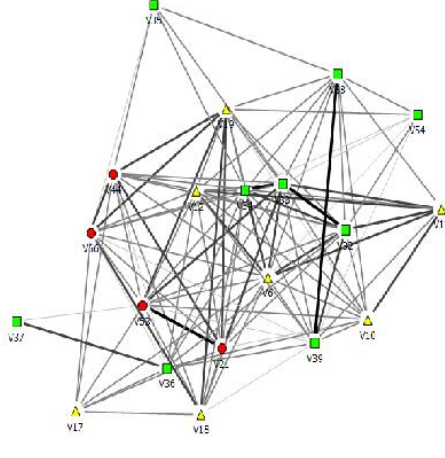
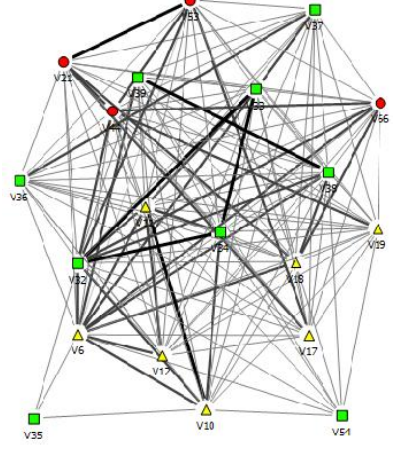
Results

Relational Class Analysis

As the first step, I ran RCA to analyze the underlying schematic structure of justice beliefs. Table 2.1 summarizes the results. RCA identified three classes of distinct ideational structure, presented as Group 1, 2, and 3 in the table. For each group, I visualized the networks

of variables employed in the analysis, in which links are correlation coefficients between variables. The networks can be interpreted as the relational structure of people's cognitive-attitudinal schemata regarding distributive justice. Each vertex in the networks indicates a survey item used in the analysis and the three kinds of shape/color of vertices denote three categories of distributive justice explained earlier: self-interest (red/round), equity-merit (yellow/triangle), equality-need (green/square). Graph edges, weighted based on the strength of correlations, are shown when a correlation coefficient between two variables is statistically significant ($p < .05$) and removed otherwise.

Table 2.1 Illustration of Three Kinds of Distributive Justice Schema and Their Key Characteristics Based on the Results of Relational Class Analysis

	Group 1	Group 2	Group 3
			
Percentage ¹	58.2%	22.9%	18.9%
Avg. Correlation Coef. ²	.148 (.110)	.202 (.097)	.213 (.083)
Density	.611	.600	.800
Transitivity	.677	.726	.888
Clustering Coefficients	.716	.722	.905
Modularity ³	.074	.016	-.031
Eigenvalue ⁴	2.896 (.145)	3.822 (.191)	4.581 (.229)
Relative Characteristics	Modularized; Relatively weak association	Less Modularized; Mixed association	Tightly Clustered; Relatively strong association

Note: 1. Percentage of total population. 2. Standard deviations in parentheses 3. Node attributes (self-interest, equity/merit, equality/need) as partitioning vector. 4. Eigenvalues of the first principal components, produced by principal component analysis. Variance explained by the first principal component in parentheses.

To summarize the patterns, Group 1 shows relatively weak and less cohesive relations among survey items. Items that belong to a same category (self-interest; equity-merit; equality-need) are somewhat strongly connected but they have relatively weak association with items in other categories. This means that for individuals who belong to Group 1, which accounts for the belief structure of the majority (about 58.2%) of total observations, the three domains of distributive justice are not meaningfully structured onto a same dimension and each domain exists as relatively separate modules.

In contrast, opposite patterns can be found in Group 3, which shows stronger and cohesive association among variables. Individuals who belong to this group (about 18.9%) have cognitive-attitudinal schema in which issues of different distributive justice categories are relatively more strongly and well-connected with one another. Contrary to Group 1, strong, significant correlations are not only found among within-category variables, but also across different categories. This type of respondent holds relatively sophisticated and well-established ideological views on distributive justice issues, showing the high level of attitudinal constraint of “ideologues” (Converse, 1964).

Group 2 (about 22.9% of total population) shows characteristics that are more or less in the middle between those of Group 1 and Group 3; variables in different domains show a little more modularized pattern than Group 3, while also exhibiting stronger overall association than Group 1.

The differences between the three clusters can be more clearly demonstrated by several measures of network properties. To focus on the difference between Group 3 and Group 1, Group 3 shows stronger average correlation among variables than Group 1 (.213 vs. .148), higher density (.800 vs. .611), higher transitivity (.885 vs. .662), and a higher clustering coefficient

(Watts, 1999) (.905 vs. .716). All of these measures confirm that individuals in Group 3 show much stronger attitudinal constraint (Converse 1964).

With regards to the problem of multidimensionality of justice principles, a particularly more important measure is network modularity. Modularity is conceptually defined as the ratio between the number of edges within communities (or groups or partitions) to edges that cross the boundary of communities and is produced by computing to what extent the ratio in the given network is different from the ratio of a null model in which edges are placed completely at random (Freeman, 2011; Newman, 2006; Newman and Girvan, 2004). The higher the value of modularity, the more the network shows “modularized” structure, which indicates that the structural properties of the network is affected by the boundaries of subgroups, communities, or partitions in the network. The network modularity measured in my analysis uses the three vertex categories (self-interest; equity-merit; equality-need) as the partitioning vector (see Chung and Lu, 2002; Newman, 2006).

For Group 1 and Group 2, the node category is a meaningful vector that accounts for the community structure of each network as the positive modularity values show (.074 and .016, respectively) while such community-form is more salient in Group 1. In Group 3, however, modularity shows a negative sign (-.031), which means that the network structure of distributive justice issues in Group 3 cannot be meaningfully explained by the three distributive justice categories, even to the extent that the three categories can explain the community structure of random networks slightly better. In other words, the boundaries of different domains/dimensions of distributive justice do not play a significant role at all in structuring the belief system and attitudes regarding distributive justice for individuals in this group, because their high level of

belief/attitudinal coherence and congruence trumps the domain specificity of different distributive justice issues.

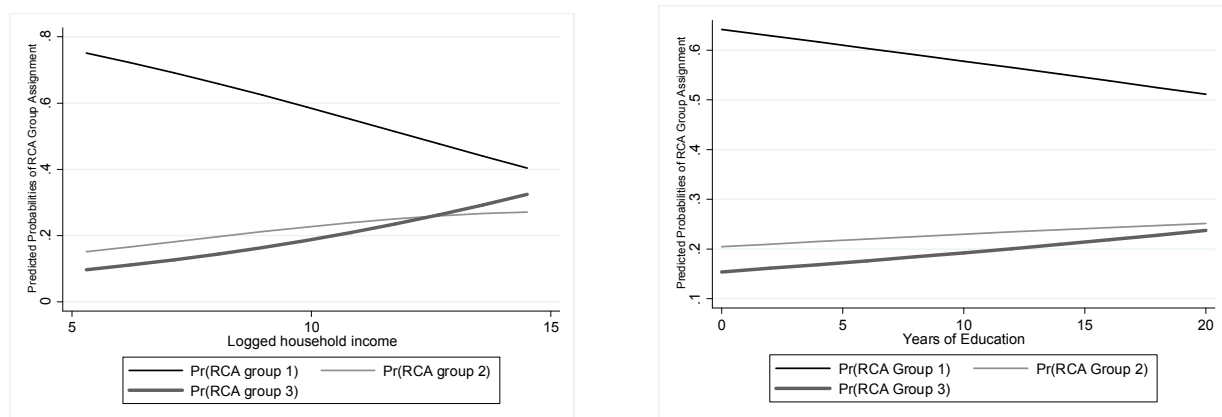
This finding suggests that the multidimensionality of distributive justice principles widely discussed in the past literature depends on the cognitive-attitudinal style of an individuals' belief system. That is, for individuals who exhibit relatively stronger attitudinal coherence, the multidimensionality is significantly muted and the multidimensional structure can be reduced to a fewer number of cognitive-attitudinal dimensions.

This pattern can be further examined by using principal component analysis (PCA), which can reduce high-dimensional data structure to smaller dimensions. Eigenvalues produced by PCA can specifically reveal that: the higher an eigenvalue is, the better the variables can be reduced to a fewer number of dimensions, which means that respondents' distributive justice beliefs can be successfully explained by a smaller number of underlying cognitive-attitudinal principles. Table 2.1 shows the eigenvalues of and variances explained by the first components in each group, when PCA is carried out for each RCA group. The results suggest that respondents in Group 3 exhibit a more coherent and integrated view on distributive justice issues, which is more easily reducible to a smaller number of dimensions (eigenvalue of the first principal component: 4.581) than respondents in Group 1 (2.896) or Group 2 (3.822). This result confirms the findings derived from other network property measures discussed above.

However, it should be noted that the level of constraint measured by correlation (Baldassarri and Gelman 2008) is still not high for individuals in RCA Group3 (mean $r = .213$). And as average correlation is computed based on only statistically significant ties, it may exaggerate the actual level of constraint. Once we also consider ties that are not statistically significant and compute the average strength of correlations of all ties, it decreases to .177, with

an estimated standard deviation of .099, which means that individuals' opinions on one distributive justice issue can explain only 17% of their opinions on another issue on average, even among people who have relatively high attitudinal constraint. Therefore, despite the relatively stronger attitudinal coherence and constraint found for Group 3, the group's absolute attitudinal constraint is actually low.

Collectively, this analysis suggests that the attitudinal structure of the majority of Chinese citizens is characterized by what has been described by past studies as low attitudinal constraint (Converse, 1964), split-consciousness (Kluegel et al., 1995), and compartmentalized beliefs (Lane, 1962); these theories argue that multiple and potentially challenging beliefs can coexist in one's belief system and individuals do not necessarily reconcile such contradicting beliefs. It also supports past studies which contend that people's attitudes are rarely coherently integrated into a single cognitive-attitudinal dimension and one type of belief is often "layered on" another (Kluegel and Smith, 1986).



(a) Logged household income

(b) Years of education

Figure 2.1 Respondents' Household Income, Years of Education, and Predicted Probabilities of RCA Group Assignment

What are the factors that affect individuals' RCA group assignment? What kinds of demographic factors bring about different types of belief structure? Studies on public opinion predict that the level of education would be the most important explanatory factor, as educational level affects one's political knowledge and cognitive skills, which are essential factors that determine ideological coherence in political beliefs (Converse 1964). To test this, I ran ordinal logistic regression to find the effect of individuals' demographic factors on their cluster membership identified by RCA.¹⁴ The results show that respondents' household income and the level of their education are the only statistically significant explanatory variables that predict individuals' group assignment, when other variables are controlled for.¹⁵

Figure 2.1 presents the relationship between household income or education and the predicted probabilities of belonging to each RCA Group. It shows that when one's income or education is high, individuals tend to have less modularized cognitive-attitudinal schema on distributive justice (Group 1) but as the level of income or education increases, one is likely to have more organized and ideological belief systems on distributive justice, which shows cohesive and meaningful associations between self-interest, equity/merit, and equality/need (Group 2 and 3). In other words, individuals with high household income or educational attainment are more likely to have an organized, ideological belief system on various distributive justice issues, whereas individuals with lower income tend to have less organized opinions.

What is a more interesting pattern revealed here is the strong, significant net effect of household income. While the effect of education is not very surprising since a number of past

¹⁴ Alternatively, multinomial logistic regression can be used since each RCA group shows substantively different patterns of relations among variables. However, as this chapter only focuses on some selected network properties of attitudinal association revealed by RCA, which exhibit ordinal characteristics as shown in Table 1, I use ordinal logistic regression to concentrate on those aspects.

¹⁵ Other variables employed in the analysis are: age, gender, marital status, communist party membership, and region (urban/rural).

studies on attitudinal constraint point to the role of education, the strong net effect of income is less expected. Simply speaking, the result suggests that in China, rich people tend to be more ideological with regards to distributive justice. People with higher income may be more likely to be “ideologues” with regards to distributive justice for justification of their economic positions or through their personal experiences in climbing the economic ladder, while the poorest part of the population does not have enough chances or experiences to think through various social or economic issues. Such a result is consistent with some past studies that found stronger attitudinal constraint among wealthier voters (Baldassarri and Gelman 2008).

Latent Class Analysis

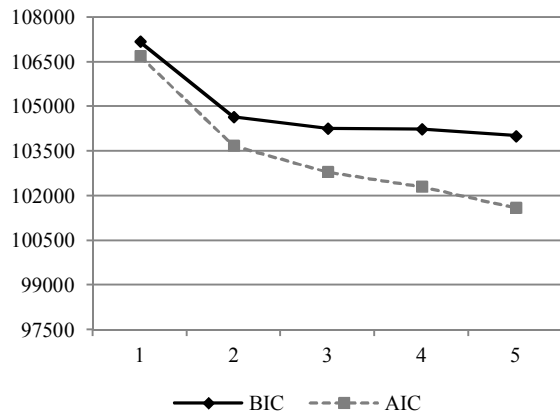
As the next step, I will undertake a latent class analysis to find different latent typologies of popular attitudes toward distributive justice. The same twenty variables employed in RCA are used in LCA. LCA is not only conducted for the whole sample, but also for each of the three groups identified by RCA. Comparisons of models with different numbers of latent classes favored a model with two classes, which I labeled as *egalitarianism* and *non-egalitarianism*. Two model comparison indices, AIC and BIC¹⁶, are used to choose the optimal number of latent classes. Chi-squared based tests are also often used to find the appropriate cutting point for selecting the number of latent classes. However, as the number of variables used in the analysis is somewhat large (20), the number of cells whose observed frequency in the contingency table is very small or zero would be too many compared to the sample size (i.e., sample size: 2,074; the total number of cells: 20 five-category variables: 5^{20} (≈ 95 trillion)). Such sparseness causes

¹⁶ These are penalized-likelihood criteria, which give more penalty to models that are less parsimonious: in other words, when loglikelihoods are same for different models, the model with the fewest parameter is indicated as a better model. In LCA, the parameter generally refers to the number of classes. As a result, the lower AIC and BIC are, the better the model.

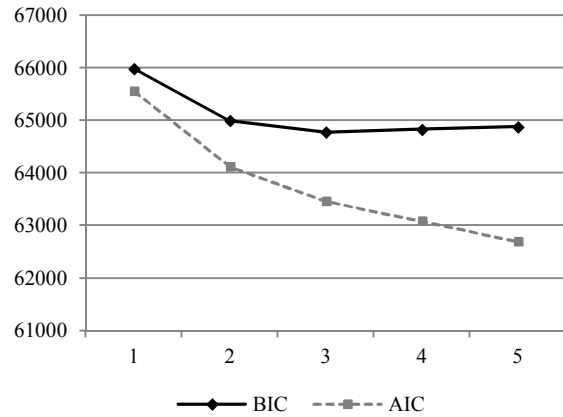
serious problems for Chi-squared based tests. Therefore, model comparison measures (AIC, BIC), rather than absolute model fit measures (e.g., the G^2 test statistic), are preferred here to decide the optimal number of latent classes.

Figure 2.2 shows the patterns of model comparison measures that show the relationship between the number of latent classes in LCA models and the values of AIC and BIC. The lower the values of AIC and BIC, the better the latent class model is. However, as finding too many latent classes would not be useful or meaningful, one has to choose an optimal point (i.e., the number of latent classes) which shows relatively lower values of AIC and BIC and at the same time, the decrease of AIC and BIC is large and efficient. In subfigure (a), which is based on the full sample, it is clear that the reasonable cutting point suggested by AIC and BIC is two latent classes. A greater number of classes does not greatly reduce AIC and BIC, and especially BIC is not substantively reduced after identifying two latent classes. This pattern shows that we can properly summarize respondents' attitudes on twenty items with two latent classes.

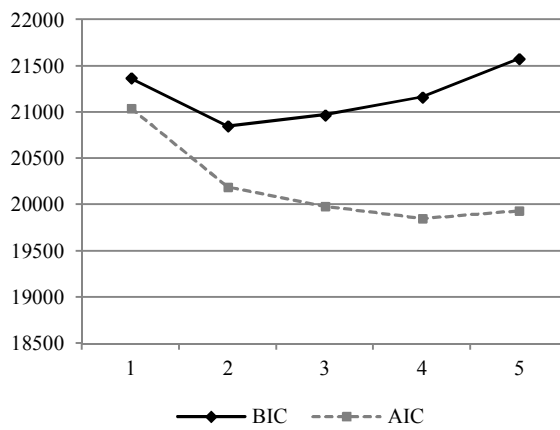
In addition, I applied LCA to each of the three RCA groups identified in the above analysis. Subfigures (b), (c), and (d) respectively show the AIC and BIC values when LCA is carried out for RCA Group 1, 2, and 3. In subfigure (b), the optimal number of classes in LCA models is less obvious: BIC seems to suggest that two latent classes are more or less recommendable as the cutting point, but it is much less clear with AIC. On the other hand, subfigures (c) and (d) exhibit very different patterns. Particularly, the values of BIC increase when more than two classes are identified, which suggests that identifying more than two classes actually worsens the model fit. The values of AIC also strongly suggest that LCA models with two classes are superior to other models. Such a pattern is more prominent in subfigure (d) (RCA Group 3) than in figure (c) (RCA Group 2). In other words, RCA Group 3 shows the most



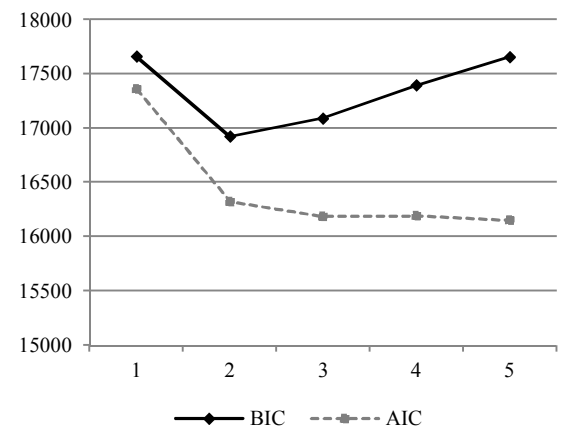
(a) Full sample



(b) RCA Cluster 1



(c) RCA Cluster 2



(d) RCA Cluster 3

Figure 2.2 AIC and BIC for LCA Models of Distributive Justice Attitudes

outstanding pattern of attitudinal and belief polarization, whereas RCA Group 1 shows significantly less distinctive difference between different latent classes. Therefore, the result of the LCA model based on the whole sample (subfigure (a)) can be somewhat misleading in summarizing the underlying attitudinal patterns and belief systems accurately. That is, although the LCA result suggests that respondents can be classified into two groups according to their latent attitudes, it is likely that such a result is largely affected by respondents who have relatively well-established and coherent belief structure. This finding also shows an important

implication that relational similarity captured by RCA and absolute similarity captured by LCA are deeply related with each other as different aspects of the same connective structure of “the attitudinal cognitorium”¹⁷ (Rosenberg, 1968).

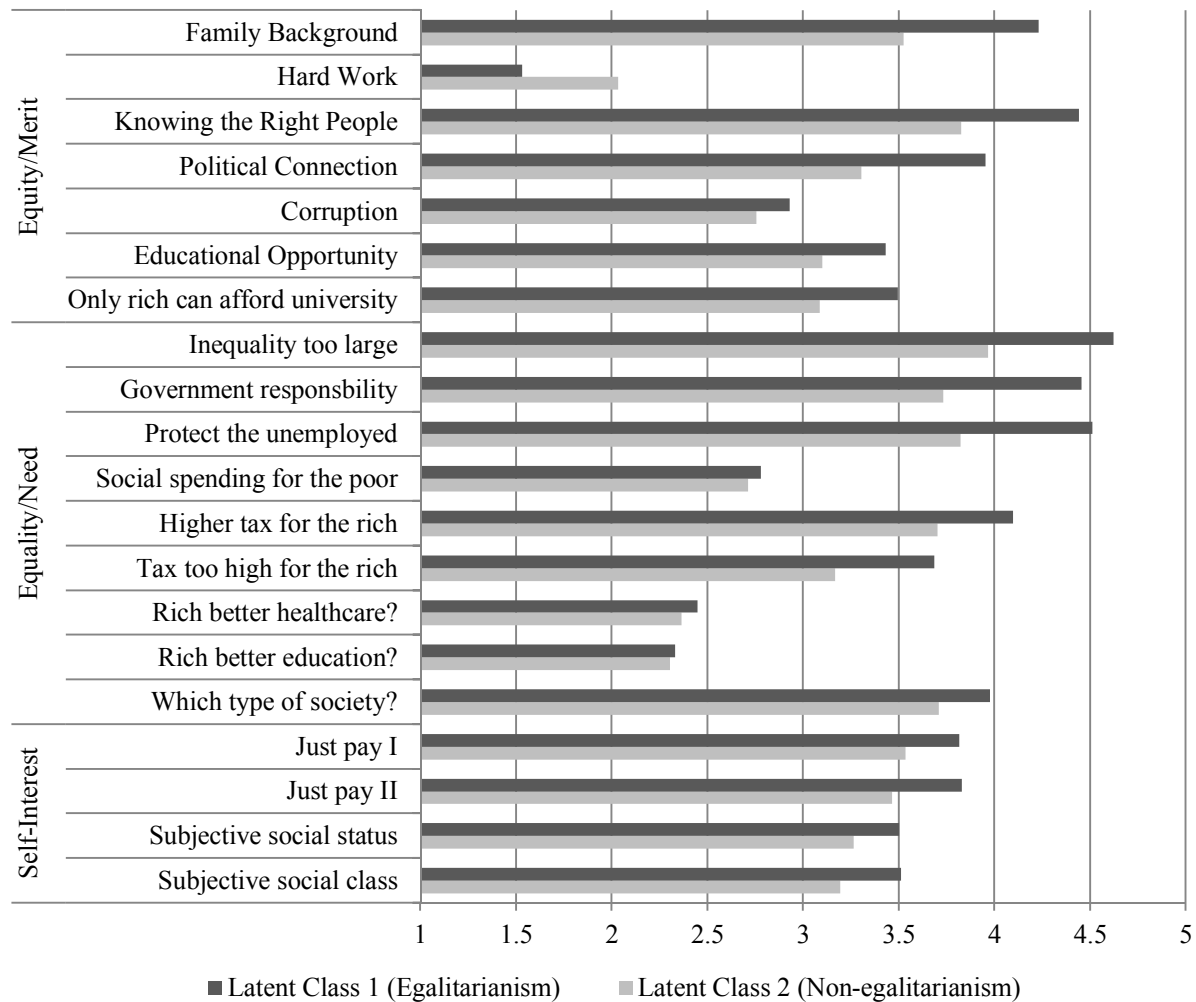


Figure 2.3 Variable Means by Two Latent Classes

Figure 2.3 presents the result of LCA, which shows how respondents’ attitudes toward the twenty issues used in the analysis are organized by two latent classes. The bars indicate mean values of each variable; higher values refer to more critical opinions regarding each issue

¹⁷ In Rosenberg’s terms: “Let us imagine a finite but vast space called the ‘attitudinal cognitorium.’ Within it are located hundreds (thousands?) of object-concepts, each of these being a verbal (or other symbolic) representation of a person, institution, policy, place, event, value standard, or other ‘thing’ which, when psychologically encountered, elicits some fairly stable magnitude of either positive or negative evaluative affect...” (Rosenberg, 1968: 79-80.)

(i.e., more egalitarian perspective, stronger focus on unfair elements, dissatisfaction with one's current economic situation, etc.). Two variables that are not in the five-point scale, one's subjective social position and subjective class identity, are recoded to fit the scale. The response pattern exhibited by respondents in Latent Class 1 (egalitarianism) shows relatively critical attitudes toward unequal conditions and one's socioeconomic position in society. People in this category tend to express more critical opinions about casual factors of wealth, the level of inequality, government's responsibility, tax policies, and so on. They are also less satisfied with the level of their pay and their socioeconomic positions. Respondents of Latent Class 2 (non-egalitarianism), in contrast, hold relatively less critical attitudes on those issues.

There is one item whose pattern seems to deviate from the attitudinal division between two latent classes: opinion about the importance of hard work to get ahead. While respondents in Latent Class 1 tend to show more critical opinions about various distributive justice issues than people in Latent Class 2 do, they are significantly more likely to think hard work is important. This pattern contradicts the common understanding that connects emphasis on hard work with merit-based ideology that justifies the system of inequality. It shows, at least in China, that a stronger belief in hard work is ironically associated with critical attitudes toward the status quo and unequal system. In other words, people emphasize hard work because it is important for overcoming the barrier of inequality and inequity rather than because it is the legitimate source of inequality. This mentality can be thought of as *pragmatic belief* in individual merit rather than *ideological belief*.

However, despite these differences between the two groups, the overall size of attitudinal differences is not very impressive and both groups tend to show substantively similar opinions. While the analysis based on LCA shows *contents heterogeneity* in people's beliefs, it does not

take into account *constraint heterogeneity*, which is shown by RCA. Then how does the overall social contour of popular attitudes toward distributive justice look like when heterogeneity in contents and constraints are considered together?

Table 2.2 Six Classes Identified by Relational Class Analysis and Latent Class Analysis

	LCA Non-Egalitarianism	LCA Egalitarianism	Total
RCA Group 1	573 (27.63%)	635 (30.62%)	1,208
RCA Group 2	307 (14.80%)	168 (8.10%)	475
RCA Group 3	242 (11.67%)	149 (7.18%)	391
Total	1,122	952	2,074

Note: Percentages in parentheses indicate the relative size to the total number of cases

Table 2.2 shows six different kinds of beliefs and attitudinal styles structured among Chinese citizens, identified by RCA and LCA. Values, in parentheses, show the size of each cell's frequency as a percentage of the total sample. There are a few notable patterns in this table. First, as already shown in Figure 2.2, all RCA groups are divided into two groups that show different levels of egalitarian attitudes. It means that even individuals in the group with low constraint and high dimensionality (RCA Group 1) can be roughly divided into two same groups. Second, the size of population who has relatively well-organized, coherent, and critical views on distributive justice in Chinese society (RCA Group 3 & LCA-egalitarianism), who are likely the most discontent, ideological individuals in the population regarding distributive justice, is relatively small (7.18 %), even smaller than their non-egalitarian counterparts (11.67%).

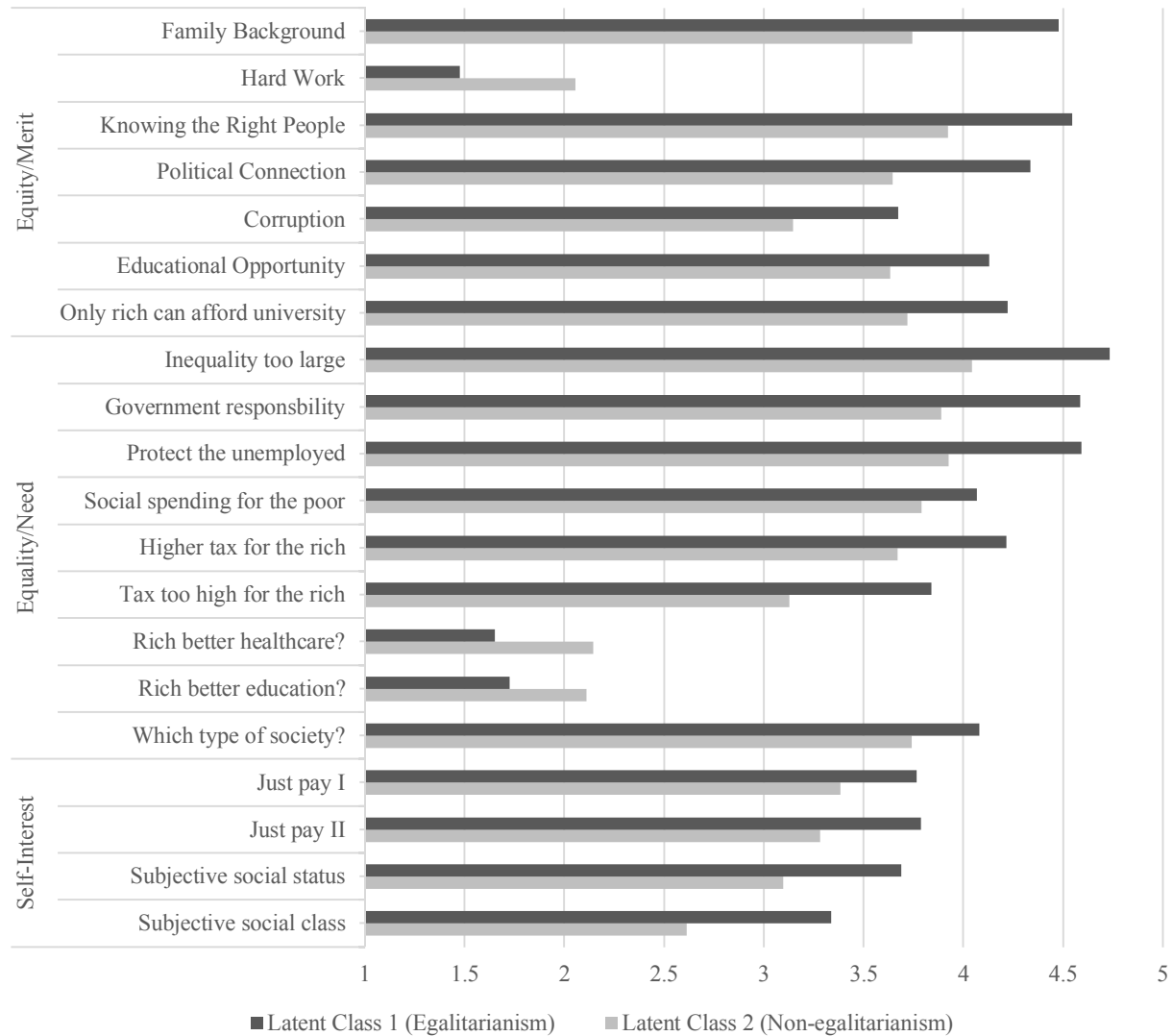


Figure 2.4 Variable Means by Two Latent Classes in RCA Group 3

Furthermore, as noted earlier, because even the correlational constraint of the RCA Group 3 is actually low by conventional standards ($r = .177$; S.D. = .099), the result suggests that the size of population with highly critical egalitarian attitudes and a high level of attitudinal constraint would be far smaller than 7%. Even though deciding whether the size is small or large is essentially a judgment call, considering the strong political focus on the problem of inequality and the public's discontent reported by the media, the pattern shows a somewhat unexpected

discrepancy between what is perceived as “public opinion” on inequality and the actual characteristics of people’s ideas on distributive justice in today’s China.

Finally, what patterns would be revealed if we focus on the attitudes of individuals in RCA Group 3 only? Figure 2.4 shows the mean attitude scores by two LCA groups in RCA Group 3, namely, individuals who have relatively stronger and coherent belief system about distributive justice. The most notable pattern found in this result is that the overall attitudinal difference between the two LCA groups in RCA group 3 is only little larger than the difference between the two LCA groups in the total sample (Figure 2.3). Although RCA Group 3 is relatively the most “ideological” group, the actual overall attitudinal distance between the two ideological groups is not much greater than when we observed the whole sample. This finding is actually consistent with some past studies on the nature of public opinion polarization in popular politics in the United States, which show that opinion polarization based on issue correlation does not necessarily has to be induced by or does not always accompany radicalization of attitudes (see Hetherington 2009). The above figure shows that, also in China, stronger attitudinal constraint is not brought about or results in extreme ideological separation between polarized opinions on various issues on distributive justice. Therefore, when the *average* opinions are measured, individuals in RCA Group 3 do not show far more extreme preferences compared to individuals in other groups, although there is a slightly greater overall attitudinal distance between two LCA groups in RCA Group 3 than in other RCA groups. This result confirms the general findings discussed so far in this chapter: when we examine the structural characteristics of the association of distributive justice attitudes in China, it is hard to find critical evidence that shows the existence of large group of individuals who have highly critical and ideological attitudes toward various issues of distributive justice. In general, attitudinal constraint

is very low and even relatively ideological group of people do not show substantively more extreme preferences regarding the problem of distributive injustice.

Conclusion

This study seeks to advance our understanding on the patterns of popular attitudes toward distributive justice by employing two kinds of methods that reveal individual-level heterogeneity. Past studies that examined individuals' different kinds of distributive justice ideas mainly looked at the relationship between individual-level variables (i.e., demographic background as explanatory variables) and a limited number of opinions or latent factors, which does not fully represent the multiple kinds of distributive justice beliefs and ideas among people. The same problem also applies to studies that use multidimensional scaling (MDS) or structural equation modeling. In those types of approaches, it is hard to differentiate individuals with heterogeneous understanding on diverse issues of distributive justice or to show different subtypes of individuals with distinct attitudinal tendencies.

To overcome such limitations, this study employs novel analytic strategy and methods to more concretely map individuals' belief systems on distributive justice than previous studies. It shows how individuals can be classified into different subgroups based on relational similarity and absolute similarity in attitudinal responses, which are respectively analyzed by relational class analysis and latent class analysis. This approach integrates the two separate lines of research agenda in past literature, which either investigate the contents of beliefs or the constraint of beliefs. The studies in the former is useful because it can show people's general attitudinal and ideological preferences and orientations in society. On the other hand, the methodological approaches taken in the latter studies allow us to conduct a formal investigation

of the structural relations between beliefs and attitudes (Martin 2002; Baldassarri and Gelman 2008). This study not only tried to take relative advantages of both approaches but also employed methods that can analyze individual-level heterogeneity in contents and constraint, so that the complex attitudinal landscape in Chinese society can be more fully explored.

Results from RCA show that the multidimensional aspect of distributive justice principles is salient for the majority of people, while it is significantly muted for other types of individuals, particularly those who hold well-organized and coherent beliefs about distributive justice. Another notable pattern found from this result is that people with lower income and education are less likely to hold a coherent set of beliefs on distributive justice. They tend to exhibit less ideological cognitive-attitudinal schemata, whereas people with higher income and education are more likely to have relatively coherent and well-organized belief structures. This study contributes to the existing literature that highlighted the multiplexity of distributive justice principles but neglected to show how such multidimensional structure exhibits different types of manifestation across individuals. Overall, RCA shows that the majority of Chinese respondents in the survey does not exhibit strong attitudinal coherence. Even individuals who show relatively stronger attitudinal constraint and less attitudinal dimensionality show a low level of correlational constraint in their beliefs on average.

Results from LCA suggest that respondents can be largely divided into two groups of egalitarians and non-egalitarians. Each latent class explains the attitudinal pattern of roughly half of total respondents. However, the overall attitudinal difference between the two groups is not very large, and they tend to agree and disagree with various issues on distributive justice. On other hand, when the result of relational class analysis is considered together, it is found that there is a large variation even within each latent class, in terms of individuals' attitudinal

coherence and the level of multidimensionality in their attitudes; the absolute majority of egalitarians identified by latent class analysis actually belongs to the relational class that shows relatively weak attitudinal coherence. Moreover, individuals who are in the ideological group (RCA Group 3) do not show significantly more extreme attitudes toward distributive justice than those in other RCA groups, which suggests that the level of attitudinal “constraint” is not strongly associated with the level of attitudinal “radicalization.”

Overall, the six classes identified jointly by RCA and LCA provides a more concrete mapping of popular attitudes toward distributive justice than previous studies and strongly suggest that the group with an egalitarian, coherent belief system would be very small in the total population. The results demonstrate that there is a gap between the common perception of public opinion and the actual landscape of popular perception of distributive justice in Chinese society.

Chapter 3

Psychosocial Dispositions and Attitudes towards Distributive Justice

This study examines the mechanism of political-economic attitude formation by investigating the effect of individuals' social psychological dispositions on their attitudes towards economic inequality. The focus of this chapter is related to the motivation part in the AMR framework. While the previous chapter directly examined individuals' distributive justice attitudes, this chapter looks at a different component in social cognition and studies how individuals' motivational tendencies that are jointly shaped by individual-specific motivational substructure and cultural and situational forces affect their opinions toward economic redistribution.

As explained in the first chapter, by motivation, I refer to an underlying motivational substructure as a fundamental motivation and to the general unconscious tendencies in the human mind that seeks cognitive and epistemic certainty, feeling of control, existential security, and belonging, and also other fundamental motives regarding morality and justice (Haidt 2007; Lerner 2003). In social and personality psychology, these motivations are often studied by taking an "individual difference" approach, which looks at more or less stable individual-level differences in personality, traits, or dispositions. Such an approach often draws criticisms from situationalist or sociological perspectives, which deny the existence of general traits or dispositions and contend that individual difference is due to situational or contextual forces.

Regarding such perspectives, I view that their criticisms are understandable but not valid and they misunderstand the nature of personality traits or psychological dispositions. Personality,

traits, and dispositions should be understood as cognitive-affective information processing system, which is basically a network of a myriad cognitive and affective units in our mental system, developed as psychological and behavioral adaptive strategies to solve problems. If we take this kind of view, it becomes more or less clear that most debates regarding whether dispositions exist or not is unnecessary and misguided. Because the cognitive-affective information processing has to be organized as a structured system in order to be an efficient network of interconnections between mental units, it is obvious that the chronic parameters of the system will show some degree of stability, and when combined with different levels of basic individual-specific needs and desires (for example, see Fiske 2004), it will result in individual difference. On the other hand, there is little ambiguity that such a system would be heavily influenced by the effects of socialization, experiences, cultural contexts, frames, culturally shared schemata, situational cues, and meanings attached to informational input, so the information processing system is always malleable and subject to change.¹⁸ Although there are some issues of debate and controversy, this kind of integrative model that embraces both situations and dispositions as fundamental factors that jointly construct personality, traits, and dispositions have increasingly become a standard view in various fields in psychology (Powell, Royce, and Voorhees 1982; Mischel and Shoda 1995, 1998; Cervone and Shoda 1999; Rusting 1998; Higgins 1999; Anderson and Bushman 2002; Borkenau and Mauer 2007; Wilkowski and Robinson 2008; Krohne and Hock 2011). Therefore, rather than simply rejecting the idea of latent traits or dispositions, sociologists can use the pragmatist idea of “cognitive-affective habits” (Gross 2009), or the concept of “psychosocial dispositions” that will be proposed by this chapter, to understand the basic nature of dispositions and traits and examine motivational

¹⁸ For example, in clinical psychology, a number of studies have developed methods to assess and change individuals’ information processing tendencies (see Baumert and Schmitt 2012:87).

differences between individuals, without having to engage with the unnecessary dispositions-situation debate.

Among a large number of basic human motivational tendencies, this chapter will focus on two kinds of dispositions stemming from cognitive-existential motives that have been studied as important sources of conservative ideological orientations in social psychological studies: authoritarianism and social dominance orientation. Existing sociological scholarship on people's opinions about political and economic issues has focused on individuals' objective conditions, such as income, class positions, and occupations (Hansenfeld and Rafferty 1989; Svallfors 1997; Edlund 1999), subjective experiences such as relative deprivation and social mobility (Wegener 1991; Markovsky 1985; Smyth, Mishra, and Qian 2010), or macro-level values or ideology in society (Shepelak and Alwin 1986; Kluegel and Smith 1986; Blekesaune and Quadagno 2003; Feldman and Zaller 1992). In this vast array of literature, however, social psychological mechanisms have received relatively little attention and are underspecified in sociology, especially with regard to how they are manifested in the interaction between macro-level conditions and micro-level psychological processes. The relative paucity of such work is critical, especially since past studies often failed to provide a successful account for why individuals of lower socioeconomic status sometimes express more conservative and tolerant attitudes with regards to a variety of issues concerning inequality and distributive justice (Kelly and Enns 2010). This study argues that our understanding of popular political-economic attitudes can be advanced by taking into account the social psychological determinants of attitudes, to which sociologists have paid limited attention in past literature, and demonstrates how such a psychological process is embedded in structured, institutional conditions produced by historical trajectories and contingencies (Fishman and Lizardo 2013).

Based on empirical analysis that employs two nationally representative Chinese social surveys, this chapter demonstrates that individuals' social psychological dispositions concerning group-based inequality (i.e., authoritarianism and social dominance orientation) affect their attitudes toward economic redistribution. This study shows that regional educational inequality, largely created and institutionalized by China's extensive state intervention, produced different patterns of individual psychosocial dispositions in urban and rural areas; the consequence of this was more acquiescent and tolerant opinions about inequality in socioeconomically disadvantaged areas. This analysis reveals a hidden mechanism that past sociological studies have largely neglected to investigate in studying popular attitudes toward economic inequality and redistribution and tackles the seeming paradox of the acceptance of social inequalities by disadvantaged actors. It shows that such attitudes are shaped by a complex social process that involves institutionalized regional-educational inequality, socio-cultural views and frames concerning social hierarchy, and psychological dispositions.

The structure of the chapter is as follows. First, I will introduce two social psychological dispositions, namely authoritarianism and social dominance orientation, and discuss their characteristics and relationship with education. Second, the characteristics of Chinese educational inequality will be discussed, and hypotheses about their effects on psychosocial dispositions will be introduced. Third, I will review current scholarship on Chinese citizens' attitudes towards inequality and paradoxical patterns revealed in public opinion. Then, in the empirical analysis, I will examine the effect of psychosocial dispositions on popular attitudes toward redistribution, and how the urban-rural gap in overall educational level plays a role in determining the social outcome of such an effect. Individual-level determinants of authoritarianism and social dominance orientation will also be examined. Based on the analysis,

this study shows how micro- and macro-level forces powerfully condition individuals' attitudes toward economic inequality.

Psychosocial Dispositions and Attitudes towards Inequality

One of the most widely accepted explanations of the source of people's attitudes toward economic inequality is the theory based on the simple motivation model of self-interest and economic utility (e.g., the median voter theorem). Despite the intuitive appeal of such theories, they are exposed to a number of criticisms. The most prominent problem with the theory is that it cannot explain why people in socioeconomically disadvantaged positions often show stronger endorsement of the status quo and demonstrate conservative attitudes. Previous sociological studies that found that such paradoxical attitudinal patterns emphasized the role of the dominant ideology and values in society (Kluegel and Smith 1986). However, this kind of explanation based on a *top-down* framework has only limited explanatory power for the within-country variation in people's acceptance of inequality.

In trying to solve this puzzle, social and political psychological studies have shown that there are also *bottom-up* processes that drive attitude formation, especially through psychological tendencies concerning social hierarchy and intergroup bias. The collective body of such studies strongly suggests that individuals' social, political, and economic attitudes are shaped by various underlying cognitive and motivational factors, including social dominance orientation (Pratto et al. 1994; Sidanius and Pratto 2001), authoritarianism (Altemeyer 1996; Stenner 2005), moral intuitions (Haidt 2007), worldview based on unconscious family models (Lakoff 1996), in-group bias in inter-group relations (see Levin et al. 2002), and motivated social cognition and system justification (Jost et al. 2003; Jost and Banaji 1994). One common theme across these findings is

the importance of stylized psychological orientations, which shape how individuals understand and evaluate the social world, especially regarding the *hierarchical* organization of society, groups, and individuals. Such orientations tend to assign greater value to one group or one type of individual over another or to a whole group (e.g., family, organization, society, or nation) over individuals.

Authoritarianism and Social Dominance Orientation as Psychosocial Dispositions

Of theories introduced above, the present study focuses on authoritarianism and social dominance orientation. The two have been studied in social and political psychological studies for a long time and often regarded as the best constructs that measure distinct dimensions in ideological attitudes concerning conservatism versus liberalism, hierarchy versus egalitarianism, tough versus tender, and so on. (Duckitt and Sibley 2009:98).

Authoritarianism refers to a psychological need to minimize difference and promote uniformity and social order with a disposition towards intolerance, particularly with regards to political, racial, cultural, and moral issues (Stenner 2005)¹⁹. A strong authoritarian disposition leads to a preference for a strict social order and a tendency to see the world through a black/white schema. Those who score high on authoritarianism feel considerable threats from groups such as immigrants, other races/ethnicities, or sexual minorities, and they show strong hawkish attitudes toward foreign policy and the resolution of conflict (Hetherington and Weiler 2009). Authoritarian orientation also consists of such aspects as conventionalism and

¹⁹ Authoritarianism is a relatively old concept in psychology first proposed by Adorno's measure of California F-scale (Adorno et al. 1950), but there has been a resurgence of interest in the concept thanks to Altemeyer's Right-Wing Authoritarianism scale (RWA; Altemeyer 1981, 1988, 1996; Mirels and Dean 2006), which is based on more specific attitudinal clusters than the original measure.

authoritarian submission,²⁰ which are closely related to conservative ideological beliefs and attitudes. Although authoritarianism is generally related to cultural conservatism, there are a few reasons why we can expect that it is significantly associated with economic conservatism such as opinions about the state's responsibility for economic redistribution which is the key dependent variable in this chapter. First, because authoritarianism captures tendency to justify the established order and status quo, individuals with a higher level of authoritarianism are less likely to think that the state needs to take an action to correct itself. Second, authoritarians show the attitudinal tendency of "tough-mindedness" (Eysenck 1954; Rokeach 1960; or "lack of love" according to Lipset [1959]), which produces a weaker inclination to care for the poor. Therefore, although authoritarianism does not contain ideas that are directly associated with laissez-faire economics, it tends to show positive association with anti-egalitarian attitudes toward economic issues.

The idea of social dominance orientation is based on social dominance theory (SDT), which posits that individuals' preference or taste for inequality can be explained by their social dominance orientation (SDO), a "generalized orientation towards and desire for unequal and dominant/subordinate relations among salient social groups, regardless of whether this implies ingroup domination or subordination" (Pratto et al. 2006). Individuals with high SDO tend to agree with and desire for an unequal system marked by group-based social inequality, which is ordered along a superior-inferior dimension, and they support social and economic policies that create and maintain inequality. This psychological disposition extends to a variety of group-

²⁰ Conventionalism indicates "a high degree of adherence to the social conventions perceived to be endorsed by society and its established authorities," and authoritarian submission refers to "a high degree of submission to the authorities who are perceived to be established and legitimate in the society in which one lives" (Altemeyer 1996: 6).

based forms of discrimination and prejudice and political views. One important function of SDO is to produce “legitimizing myths” that view inequality and hierarchy as fair and moral.²¹

One important difference between authoritarianism and SDO regarding their motivational tendencies discussed in past literature is that the two dispositions stem from slightly different motivations and underlying worldviews. Duckitt’s dual-process motivational (DPM) model (2001) explains that authoritarianism is correlated with the view that the social world is dangerous and threatening and with an ideology that values conformity, security, traditionalism, order, and structure. On the other hand, DPM proposes that SDO is based on the insights of Social Darwinism and Machiavellianism, which value power, dominance, and achievement and see the world as a competitive jungle (see Duckitt and Sibley 2009).

Even though the effects of authoritarianism and SDO have been studied widely in research on intergroup biases and ideological orientations, several criticisms of the two theories have also been made. One of the more frequent criticisms is that the two concepts are based on psychological or biological reductionism, ignoring the vast influence of situational and contextual factors (e.g. Schmitt, Branscombe, Kappen 2003). Another criticism is that studies on authoritarianism and SDO assume the existence of certain personality dispositions, which many not actually exist, to categorize people and fit them into a nominalist typology (Martin 2001).

²¹ Authoritarianism and SDO share important ideas such as tough-mindedness (Eysenck 1954) and a preference for inequality and hierarchy, and both tend to be linked with conservative ideas (Pratto et al. 1994; Whitely 1999; Van Hiel and Mervielde 2002); nevertheless, past theoretical and empirical studies have pointed out their differences. One major difference has to do with the social domains in which each is more relevant. Strong authoritarians believe that members of a group should be submissive to order and authoritative figures; this is essentially about *intra*-group inequality. On the other hand, people of high-SDO desire to create and maintain unequal relations between groups, which corresponds to *inter*-group inequality. And although both dispositions show an affinity for conservative values, the authoritarian orientation, which desires sameness and submission as the basis of moral order, essentially pertains to socio-cultural conservatism, while SDO is more strongly connected with economic conservatism (Duriez and Van Hiel 2002). Some studies contend that authoritarianism and SDO are based on different motivational bases (Duckitt and Sibley 2009)

The two criticisms are commonly regarded as criticisms against the limitations of the “individual difference” perspective (Hollander and Howard 2000). In response to these criticisms, several counter-arguments have been made that basically contend that the criticisms are based on several misconstruals (Sidanius et al. 2004; Sidanius and Pratto 2003). The counter-arguments say that the original theory that proposed authoritarianism and SDO actually took the effects of situational and institutional factors seriously by recognizing such factors as indispensable in the formation of the psychological dispositions.

In sociological literature, a more interesting perspective was presented by Perrin (2005), who treated authoritarianism (and anti-authoritarianism) as a political-cultural frame and repertoire. This idea follows cultural sociological views that regard schemata, repertoire, and scripts as the key elements of culture (Alexander and Smith 1993; Sewell 1992; DiMaggio 1997). In contrast to the context-free and sanitized version of authoritarianism in the bulk of psychological studies, Perrin proposes an approach that views authoritarianism and anti-authoritarianism as “elements of Americans’ political-cultural repertoire” (2005: 169). Perrin’s approach, however, also entails an unresolved question of whether authoritarianism is essentially an individual trait or a cultural repertoire.

Extending the insights of Perrin, this study defines authoritarianism and SDO more specifically as *psychosocial* dispositions²², which are produced by the interaction between individual motivation and political-cultural frames and repertoires. This perspective is consistent with the view that regards personality, traits, and dispositions as cognitive-affective information

²² The term “psychosocial” is taken from Erikson’s developmental psychology, which studied the stages of personality development and examined how socialization process and experiences shape the characteristics of children’s sense of self. Here I do not use the term in Erikson’s sense, but use it to indicate that the dispositions this study is examining are the joint products of the style of individual-specific needs/desires and social/cultural forces, which produce individuals’ distinct styles of perception of the social world.

processing system, which reconciles different perspectives on personality traits, as introduced in the beginning of this chapter. The motivation aspect in psychosocial dispositions can be explained by the theory of Jost et al.'s influential paper (2003), which uses a "motivated social cognition" perspective to theorize the effects of motivation on cognition. According to this perspective, authoritarianism and SDO as conservative ideological orientations are adopted to satisfy individuals' existential and epistemological motives, such as "needs for order, structure, and the avoidance of uncertainty and threat" (p. 341). Integrating the insight of motivated social cognition and Perrin's political-cultural approach, this study argues that authoritarianism and SDO are affected by individuals' underlying existential and cognitive motives (bottom-up process) and, at the same time, also shaped and expressed under the influence of social, cultural, and political frames and repertoires (top-down process) (Jost, Federico, and Napier 2009). The expression of psychological traits relies on, and is inseparable from, individuals' lay theories about the world, social values, and discourse, all of which stem from culturally available schemata (Heaven et al. 2006; Furnham 1988). For example, expressing support for the authoritarian government in China, right-wing extremism based on nationalism and racism in many societies, and the justification of hierarchical order based on age or gender are neither simple outcomes of individual traits nor purely socio-cultural repertoires without any psychological basis: each must intersect with one another through the enmeshing of bottom-up and top-down processes. In sum, my study regards authoritarianism and SDO as products of individuals' existential and epistemological motives concerning group hierarchy (Kruglanski 1990, 1999; Jost et al. 2003; Duckitt and Sibley 2009; Jost, Federico, and Napier 2009) that are embedded in locally prescribed political-cultural schema about the hierarchical and unequal organization of society.

Educational Inequality and Its Effect on Psychosocial Dispositions

While social psychological studies largely agree that cultural contexts and psychological traits interact with each other, the role of formal institutions in that process is understudied. I examine how state policies that distribute economic and social resources unequally across different areas can have a strong ripple effect on the social psychological contours of popular attitudes toward inequality, focusing on the empirical case of Chinese society.

One of the most striking aspects of the educational environment in China is its prominent regional, particularly urban-rural, gap. Despite the government's efforts to expand educational opportunities under recent leadership (Hu Jintao and Wen Jiabao), education in rural areas in China has enjoyed fewer opportunities and resources than in urban areas in almost every aspect. The national survey used in this study shows that the average number of years of education of rural *hukou* (household registration) holders is 5.76, and about 56% of the rural population has the educational attainment of primary school or below, whereas the average education of urban *hukou* holders is 10.63 years.²³ The Chinese General Social Survey (CGSS) conducted in 2008, which surveyed a much larger sample, also reveals a huge educational gap between rural and urban populations (Table 3.1).²⁴

²³ The average age difference between the two groups is 2.98, so age cannot be considered a critical factor in that difference. (The range of age is 18-98.)

²⁴ The primary reason for this educational gap is that education is, along with medical expenses, one of the biggest financial burdens for many rural households. Another important reason why many rural students do not continue their studies is because the schoolwork is not very relevant for their future prospects (Institute of Rural Education 2009). The fact that many children in rural areas do not live with their parents who work as migrant workers in urban areas also contributes to this inequality.

Table 3.1 Educational Attainment by *Hukou* Status

Educational Attainment	Rural (%)	Urban (%)	Rural-Urban Difference
Primary or below	53.9	16.8	37.1
Junior high	32.7	27.3	5.4
Senior high	11.0	30.8	-19.8
College or above	2.5	25.0	-22.5
Total	100%	100%	
N	2,570	3,350	

Data: China General Social Survey 2008 (N = 5,920)

The significance of the urban and rural gap in overall educational inequality is found in Qian and Smyth's study (2007), which shows that the major source of educational inequality is the educational gap between urban and rural areas rather than between coastal and inland areas. Again, this significant educational inequality between rural and urban areas is to large extent due to state policies that favored urban and coastal areas during the socialist period under Mao and the post-reform period, especially during the Deng Xiaoping and Jiang Zemin's eras.

This stark difference in educational opportunity has an important political implication for attitudinal differences, as past studies point out the powerful effect of education on individuals' ideological orientation (Lipset 1959; Kohn and Schooler, 1969; Achterberg and Houtman 2009). Based on the pattern revealed in Table 3.1, I posit that institutionalized regional-educational inequality produced differences in psychosocial dispositions between rural and urban China, which consequently affected the geographical distribution of attitudes toward income redistribution.

More specifically, I examine the following propositions. First, I suggest that the level of authoritarianism is higher in rural areas in China. A number of past empirical studies have confirmed that authoritarianism has a negative association with the level of education (McFarland 1999; Duriez and Van Hiel 2002; Achterberg and Houtman 2009). The association

between education and authoritarianism is usually attributed to the fact that educational attainment increases individuals' cognitive capacity or breadth of perspective such that they can question authoritarian values, and enhances one's critical attitudes toward blind submission to authority and unjustified hierarchical systems (Stenner 2005). As the average educational attainment is much lower in rural areas, the general authoritarian disposition would accordingly be stronger in rural areas. Consequently, we can observe a weaker preference for economic redistribution by the state in rural areas, where the average level of authoritarianism is higher than urban areas. The same reasoning is also applied to the case of SDO. The definition and theory of SDO tells us that higher SDO is associated with more accepting views about inequality, because stronger SDO means desire for group-based dominance, which legitimizes the unequal conditions or relationships between groups. Individuals with high SDO, regardless of one's group membership, are more likely to show general preference and tolerance for anti-egalitarian system, inequality, and hierarchical organization of community or society.

Studies on the relationship between education and SDO produced mixed results. Some of the previous studies have found that SDO is not significantly related to the level of education (McFarland and Adelson 1996; Duriez and Van Hiel 2002), while other studies confirm that increasing educational exposure decreases the expression of SDO (Sidanius, Sinclair and Pratto 2006; Sidanius, Pratto and Bobo 1994, 1996). This study accepts the findings of the latter studies and hypothesizes that the lower level of educational attainment in rural areas increases SDO, which leads to relatively conservative attitudes toward redistributive social policies.

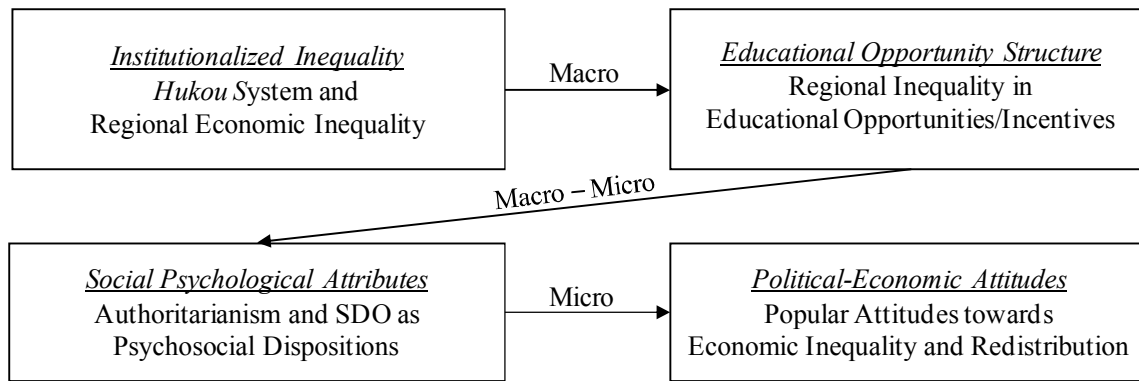


Figure 3.1 Proposed Causal Linkage between Macro and Micro Factors Influencing Popular Attitudes toward Economic Redistribution

Figure 3.1 illustrates the chain of influence my study attempts to uncover. In sum, the proposed mechanism is that the relatively lower educational attainment in rural areas, caused by macro-institutional factors, strengthens psychosocial dispositions of authoritarianism and SDO, both of which have a close affinity with conservative ideology. This mechanism will be tested in the empirical analysis using structural equation models.

Paradoxical Patterns of Attitudes toward Economic Redistribution in China

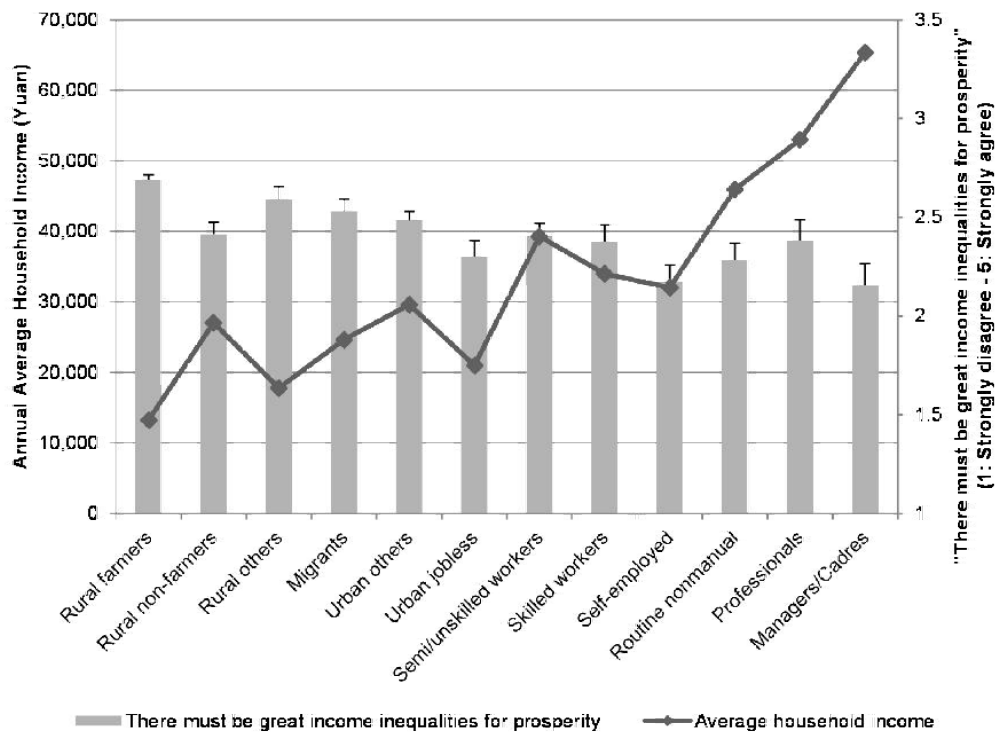
As mentioned in the first chapter, the large part of income inequality in China comes from rural-urban income inequality. Such regional inequality in China has their origins in state-imposed institutions, such as the urban-biased policies beginning in the Mao era (Whyte 1996) and the economic developmental strategies, heavily favoring coastal areas, of the reform era. The impact of these policies has been amplified by the household registration system (*hukou* system), which resulted in the reinforcement and fortification of this inequality since the 1950s. The *hukou* system restricts the spatial mobility of the population based on a person's *hukou* status (i.e., rural or urban), which causes rural residents to face substantial obstacles if they want to

move to urban areas. The great wall that the *hukou* system creates, dividing urban and rural areas and exacerbating regional inequality, is often regarded as a Chinese version of “apartheid” (Chan and Buckingham 2008). This institutional barrier affects a huge population because a large part of China is still deeply rural: about half of the total population still lives in rural areas (50.3% at the end of 2010). These conditions have resulted in the multiplication of rural and urban inequality in living standards, social mobility, and opportunity.

Despite the stark urban-rural disparity in Chinese society, recent studies have found that rural residents do not exhibit more negative attitudes than their urban counterparts in many realms of distributive justice, such as perception of current inequalities, opinions about equality and inequality, and views about individual and social opportunities. Moreover, rural residents often express relatively positive and accepting attitudes toward such issues (Whyte 2010; Han 2009, 2012). Figure 3.2, based on China Inequality and Distributive Justice Survey 2009 (to be explained later), shows an example of the puzzling patterns that reveals the discrepancy between actual income distribution and attitudes toward inequality and redistribution.

The figure shows a pattern that departs from expectations, which predict that rural residents would have significantly more critical opinions on distributive justice than urban residents. The population with the lowest income, i.e., rural farmers, has the highest acceptance of increased inequality for the sake of national prosperity. This kind of pattern can be found in other survey items as well: rural farmers show equally or less critical, and often significantly more positive and accepting, attitudes toward various distributive justice issues, such as the appropriate level of inequality and redistributive policies (see Whyte 2010). The finding that lower socioeconomic groups express a similar or even greater acceptance of inequality poses a

challenge to existing theories of determinants of attitudes toward inequality. For example, rational actor-based models of policy preferences (Meltzer and Richard 1981) and theories that



Notes: The Y axis on the left-hand side is average household income by occupational/regional groups, represented by the line graph. The Y axis on the right-hand side is the response to the survey question, "There must be great income inequalities for prosperity", represented by vertical bars with standard errors. All figures are based on China National Survey of Distributive Justice, 2009 (N = 2,967)

Figure 3.2 Average Household Income Distribution and Distributive Justice Attitudes by Rural/Urban Occupation Groups

emphasize the effects of class and occupation on attitudes and opinions (Svallfors 1997; Manza and Brooks 2003) all seem to neglect a hidden mechanism of attitude formation, since they do not adequately explain the patterns revealed in the Chinese case. The following empirical analyses will tackle this puzzling attitudinal pattern.

Data and Research Strategy

For empirical analysis, I make use of structural equation modeling to test the model presented in Figure 3.1. The analysis employs two nationally representative Chinese social

surveys. One data set is the second-wave data of the Asian Barometer Survey (ABS 2008). The survey is supported by the Institute of Political Science in Academia Sinica and the Institute for Advanced Studies of Humanities and Social Sciences at the National Taiwan University. ABS has conducted two waves of surveys across thirteen East Asian and five South Asian societies, and the survey covers various kinds of public opinion and attitudes about political and social values, democracy, and governance. My study uses Chinese cases in the survey, a nationally representative sample gathered through stratified multistage area sampling with probability proportional to size (PPS) measures (except for Tibet Autonomous Region) and face-to-face interviews of voting age adults (18 years old and above) under the direction of the Research Center for Contemporary China at Peking University. The interviews were conducted between December 2007 and June 2008, followed by a supplementary make-up survey in December 2008. With a completion rate of 72.6%, the interviews produced 5,098 successful samples in total. (Contact the author for more technical details of the survey.) This survey is useful because it contains items that reflect respondents' authoritarian orientation. The following list shows the items used to construct an authoritarianism scale (Cronbach's alpha: .70).

- Even if parents' demands are unreasonable, children still should do what they ask. (A-1)
- Being a student, one should not question the authority of their teacher. (A-2)
- The government should decide whether certain ideas should be allowed to be discussed in society. (A-3)
- When a country is facing a difficult situation, it is OK for the government to disregard the law in order to deal with the situation. (A-4)
- If we have political leaders who are morally upright, we can let them decide everything. (A-5)
- You can generally trust the people who run our government to do what is right. (A-6)
- A person should not insist on his own opinion if his co-workers disagree with him. (A-7)
- If people have too many different ways of thinking, society will be chaotic. (A-8)

These questions are useful and appropriate items for creating an authoritarianism scale as a latent variable since they all deal with the question of submission to in-groups and authority

and support for strong leadership with uncompromising power, all of which are the core attributes of authoritarianism (Whitley 1999). Specifically, these items reflect the key ideas of authoritarianism presented in past literature: (i) childrearing values form the most important ideas that reflect an authoritarian disposition (A-1); (ii) authoritarians tend to think that established authorities are generally right about things (A-2, A-3) and are more inclined to think political leaders are worthy (A-3, A-5, A-6); (iii) authoritarians show greater intolerance towards threatening societal conditions (A-4); and (iv) authoritarians favor enhancing sameness and minimizing difference (A-3, A-7, A-8) (Stenner 2005). Overall, these items capture the submissive and obedient aspects of authoritarianism (i.e., conventionalism and authoritarian submission) rather than authoritarian aggression (Altemeyer 1996).

To examine the relationship between authoritarianism and economic conservatism, the latent authoritarianism variable predicts the following 4-point scale question in the survey: “In order to preserve social justice, the government should prevent the gap between rich and poor from growing any larger” (1: strongly disagree – 4: strongly agree).⁷

The second dataset is the China Inequality and Distributive Justice Survey (2009), a high-quality, nationally representative survey based on a spatial probability sampling method, constructed through joint efforts by several institutions in the US and China.⁸ The spatial probability sampling method used such information as local population estimates, maps, geographic information system (GIS), and global positioning system (GPS) devices to identify and interview 2,967 nationally representative adults between 18 and 70 with a response rate of about 70%. For more information about the technical details of the spatial sampling method, see Landry and Shen (2005). The analysis utilizes survey questions that reflect psychosocial dispositions of SDO (Cronbach’s alpha: .72). It should be noted that my construct is a *context-*

specific SDO because the survey items employed in the analysis reference specific groups, compared to the usual SDO constructs.

- Men are more suited to leadership responsibilities than are women. (SDO-1)
- Where there are fewer jobs, men should work and women stay at home. (SDO-2)
- It is fair for people who hold power to receive somewhat privileged treatment. (SDO-3)
- It is fair that people with household registrations in the city have more opportunities than those with household registrations in the countryside. (SDO-4)
- It is fair that rural migrants are not easily permitted to obtain household registration in the city. (SDO-5)
- It is fair that rural migrants are not allowed to obtain urban welfare benefits. (SDO-6)
- City dwellers' standard of living is higher because they have made greater contributions to national development (SDO-7)
- Country and city people should have equal rights to employment. (SDO-8)
- For the prosperity of the country, there must be big gaps in income. (SDO-9)
- The state must work to reduce income inequality. (SDO-10)
- The state should ensure a minimum living standard for all. (SDO-11)

Again, the survey items used here show close similarities with diverse SDO scale items used in past studies. Such items include gender-specific SDO questions (SDO-1, SDO-2), "Some people are just more worthy than others" (SDO-3, SDO-7), "It's OK if some groups have more of a chance in life than others," "Inferior groups should stay in their place," "Sometimes other groups must be kept in their place," "We should do what we can to equalize conditions for different groups" (SDO-4, SDO-5, SOD-6, SDO-8), and "We should strive to make incomes as equal as possible" (SDO-9, SDO-10, SDO-11). One difference from the authoritarianism model is that the items concerning economic inequality and redistribution policy (SDO-9, SDO-10, SDO-11) are not separated out as outcome variables, but included as manifest variables that construct the latent SDO, since the desire for inequality between different social groups is a fundamental element that constitutes SDO (Pratto et al. 1994; Duckitt and Sibley 2009; Duriez and Hiel 2002; Ho et al. 2012). Taking out the three variables as "egalitarianism-SDO" produced a significantly worse overall model fit than using all eleven items together to construct a single

latent SDO, and thus the items are not subdivided into separate group-specific SDOs when estimating the structural equation model. In sum, the analysis will investigate the effect of education on SDO and whether latent SDO is statistically significantly manifested in observed variables pertaining to opinions about economic redistribution.

It is important to note that the survey questions selected for both analyses constitute a China-specific and group-specific version of SDO scale items used in psychological studies, which are generally abstract and context-free (e.g., “It would be good if groups could be equal”). The context-free aspect of the psychological scales have often attracted criticism from the situationalist perspective, which holds that situational factors outweigh the significance, if any, of latent psychological dispositions, such that the latter is not a meaningful determinant of people’s attitudes and behaviors in most situations. With regards to my earlier discussion of psychosocial traits as political-cultural schemata, the novel approach taken by the present study has an advantage over other versions of SDO constructs because it captures the *psychosocial* disposition as a political-cultural idea and frame attached to concrete, context-dependent, and case-specific examples. The two social surveys employed for analysis have another important merit in that they are based on nationally representative samples, providing more useful information regarding the relationship between psychological dispositions and demographic variables.

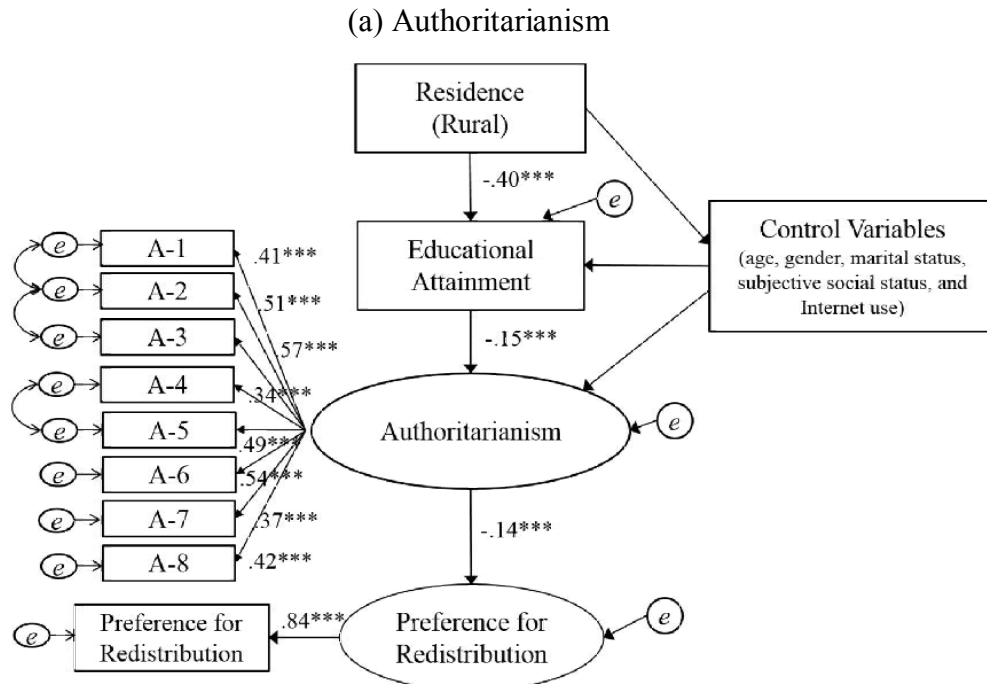
Results

To test the proposed mechanism of my argument, I employed a structural equation modeling technique, which can detect the chain of influence from macro-regional background to individuals’ attitudes toward redistributive social policies. The analysis presented in Figure 3.3

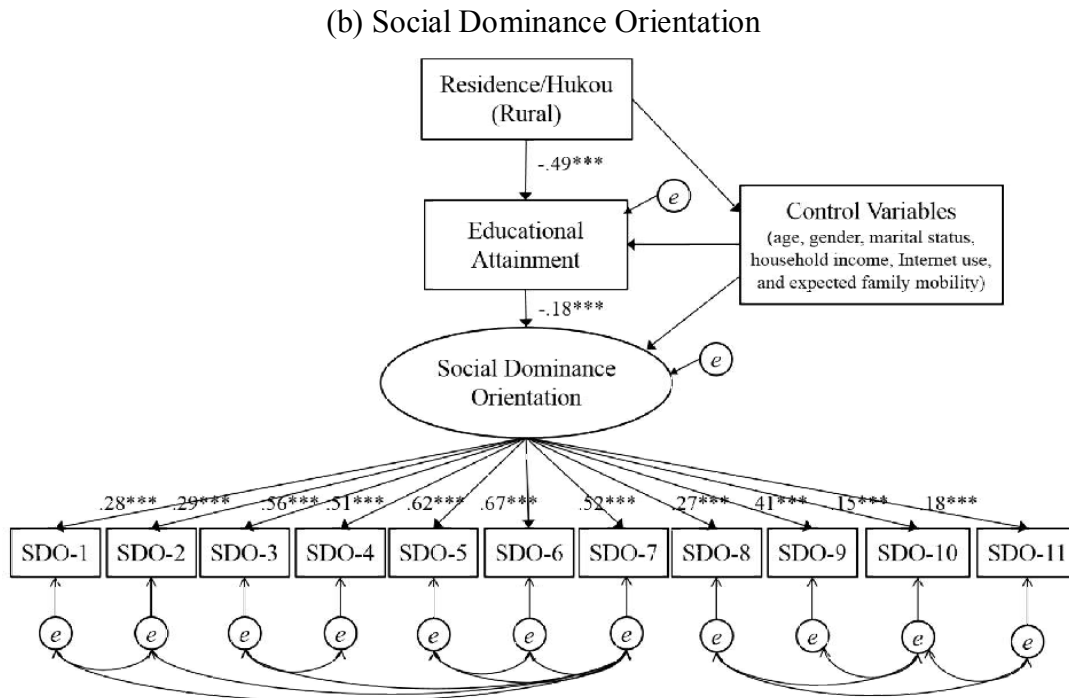
shows the results estimated by structural equation models, which demonstrate the nexus of relationships that flow from macro-structural conditions (urban-rural disparity), to individual-level status (educational attainment), to psychosocial dispositions (authoritarianism/SDO), and finally to political and economic opinions (the government's responsibility for redistribution). For simplicity, the figure does not display individual path coefficients of control variables in the model; the effect of control variables and their statistical significance will be presented and closely examined later (Table 3.2 and 3.3).

The top figure shows the effect of region (urban/rural) on educational attainment, the effect of education on the level of authoritarianism, and finally the influence of authoritarianism on attitudes toward the responsibility of the government to reduce the income gap. Because individuals' attitudes toward inequality and the role of the government are measured by a single indicator, it is very likely that the variable does not perfectly measure individuals' latent attitudes, which is often a problem when a single variable is used to predict a latent construct. In order to solve this problem, I created a reliability-corrected single-indicator latent construct for the variable (Hayduk 1987). This correction did not substantively change the results. The model shows that rural residence tends to significantly decrease the level of education ($\beta = -.40, p < .001$), and a lower level of education is significantly associated with a higher level of authoritarianism ($\beta = -.15, p < .001$). Finally, the authoritarianism scale shows a significant, negative relationship with attitudes toward the role of government in preventing income gaps from widening ($\beta = -.14, p < .001$).

The bottom figure shows the case of SDO. Similarly, it shows the significant negative effect of region (rural) on education ($\beta = -.49, p < .001$), which increases the strength of latent SDO ($\beta = -.18, p < .001$), manifested in economic SDO items regarding economic inequality



Goodness-of-fit statistics: RMSEA: .035, CFI: .936, χ^2/df : 347.55/88
 Data: Asian Barometer Survey (2008), N = 2,368



Goodness-of-fit statistics: RMSEA: .045, CFI: .935, χ^2/df : 773.85/121
 Data: China Inequality and Distributive Justice Survey (2009), N = 2,639

Figure 3.3 Test of the Models of the Relationship between Region, Education, Psychological Dispositions, and Opinion about Redistribution (Standardized Coefficients)

(SDO-9: $\beta = .41, p < .001$; SDO-10: $\beta = .15, p < .001$; SDO-11: $\beta = .18, p < .001$). This result confirms the argument of this paper that the lower level of educational attainment in rural areas increases SDO, which leads to relatively conservative attitudes toward redistributive social policies.

Although significant chi-squares are produced due to the large sample size of our datasets, both models show good model fits in terms of alternative fit statistics, such as RMSEA and CFI (Hu and Bentler 1995).

Overall, both models show that rural residents have lower levels of educational attainment and, consistent with this study's hypothesis, that education has a negative relationship with both psychosocial dispositions. The latent dispositions have negative associations with preference for redistribution, which shows that the conservative ideas underpinning the two psychosocial traits lead individuals to reduce their support for the government's responsibility to reduce economic disparity. The results also show the important role played by a culturally-ingrained social order that legitimizes hierarchical and categorically-differentiated relationships between parents and children, teachers and students, men and women, political leaders and ordinary people, and migrants and residents, all of which provide the cognitive-affective schemas and language for authoritarianism and SDO. The psychosocial dispositions are also manifested in the attitudes toward *hukou*-based discrimination, whose pattern comes from the social institutional environment of Chinese society.

In sum, the analysis reveals how political-economic attitudes can be produced by the chain of influence flowing from macro-level conditions to psycho-cultural ideas and motivations

concerning social hierarchy, accounting for social psychological processes through which acquiescent opinions about inequality in rural areas are produced²⁵.

In the following, I will focus on the effect of other socioeconomic variables included in the SEM models and examine the relationships between individuals' socioeconomic characteristics and psychosocial dispositions. To more clearly demonstrate the mediating role of education, I will present and compare the results of multiple SEM models that include slightly different sets of covariates.

Table 3.2 Structural Equation Model Estimates of Paths from Socioeconomic Variables to Authoritarian Attitudes

	Model 1	Model 2	Model 3
Age	.274*** (.023)	.188*** (.027)	.167*** (.027)
Gender (Female)	.059* (.024)	.027 (.025)	.022 (.024)
Marital Status (Married)	.069** (.024)	.064* (.025)	.045 (.025)
Subjective Social Status	-.003 (.024)	.028 (.025)	.032 (.024)
Region (Rural)	.094*** (.024)	.008 (.027)	-.016 (.027)
Years of Education		-.191*** (.029)	-.146*** (.030)
Internet Use			-.160*** (.027)
Observations	2,437	2,368	2,368
χ^2/df	204.82/67	228.63/76	347.55/88
RMSEA	.029	.029	.035
CFI	.946	.956	.936

Source: Asian Barometer Survey (2008) Chinese sample

Notes: Standardized coefficients (standard errors in parentheses.)

*** $p < .001$, ** $p < .01$, * $p < .05$. Two-tailed tests. (Two-tailed test)

²⁵ It should be noted that, however, the net model does not reject that region (or rural residence) has a net effect on distributive justice attitudes. In supplementary analysis (not reported here), it is found that rural residence still has a significant effect on attitudes toward economic redistribution even when authoritarianism or SDO is controlled for, which is consistent with the findings in past studies (Whyte 2010). The effect size of rural residence variable and its statistical significance, however, decline when the psychological dispositions are controlled for.

Model 1 shows that older people, females, married people, and rural citizens express relatively stronger authoritarian attitudes than younger people, males, non-married people, and urban citizens. However, when the level of education is introduced in Model 2, the differences between urban and rural citizens and different genders become statistically non-significant. The non-significant coefficient of the region variable in Model 2 suggests that the rural-urban difference in authoritarian attitudes is attributable to the difference in educational level, rather than to traditional or hierarchical cultural values often associated with the image of rural life. Such a result does not mean that there is no difference in cultural values between the two regions, but the difference in attitudinal tendencies in the two areas is largely due to the effect of education rather than deeply instilled cultural and local value systems.

One might argue that the significant effect of education is attributable to individuals' access to information and political knowledge, often regarded as the basis of public opinion, and the urban and rural attitudinal differences depend on the extent to which people have access to information (e.g., different Internet penetration rates in each area). In order to control for the effect of information, Model 3 includes a variable "Internet Use," which is coded as 1 if a respondent's main source of news is Internet (rather than television, radio, personal contact, magazine, or other media). It shows that Internet use is highly significant ($p < .001$), confirming that increased exposure to (relatively unofficial) information can affect people's perspectives on authoritarian submission and conventionalism. Including this variable in the model, however, does not substantively change the effect of education, which suggests that the effect of education on authoritarianism is not determined by the level of access to information.

On the other hand, all models show that subjective social status does not have a significant net effect on authoritarianism, which is consistent with the claims that

authoritarianism is not driven by one's economic position but by one's cultural position (Achterberg and Houtman 2009), which correlates with educational level.

Table 3.3 Structural Equation Model Estimates of Relationships between Socioeconomic Variables and Social Dominance Orientation

	Model 1	Model 2	Model 3	Model 4
Age	.084*** (.024)	.045 (.025)	.047 (.026)	.044 (.025)
Gender (Female)	.070** (.022)	.067** (.022)	.068** (.022)	.066** (.022)
Marital Status (Married)	.014 (.024)	.011 (.024)	.011 (.024)	.012 (.023)
Household Income	-.154*** (.025)	-.106*** (.027)	-.107*** (.027)	-.096*** (.027)
Residence/Hukou (Rural)	-.050* (.025)	.016 (.027)	.015 (.028)	.010 (.028)
Years of Education		-.172*** (.030)	-.176*** (.031)	-.178*** (.031)
Unofficial Information			.009 (.029)	.017 (.030)
Expected Family Mobility				-.052* (.023)
Observations	2,643	2,640	2,640	2,639
χ^2/df	586.90/85	622.06/96	716.82/107	773.85/121
RMSEA	.047	.046	.046	.045
CFI	.926	.937	.938	.935

Source: China Inequality and Distributive Justice Survey (2009)

Notes: Unofficial information: average response towards 1) Use the Internet to learn news (1: never – 5: frequently) and 2) Get news from foreign media (1: never – 5: frequently); Expected Family Mobility: expected family economic situation 5 years later (1: much worse–5: much better).

Standardized coefficients (standard errors in parentheses.) *** $p < .001$, ** $p < .01$, * $p < .05$. (Two-tailed test)

Table 3.3 reports the results from the SEM models of SDO. Taking advantage of the greater amount of information available on individuals' background in the data set, the analysis includes additional explanatory variables, such as one's household income and expected economic situation of family. Model 1 shows that older people, females, people with lower incomes, and rural citizens have higher levels of SDO. Again, however, as in the case of

authoritarianism, the significant difference between rural and urban citizens is explained away by the respondents' levels of education, confirming the powerful influence of education (Model 2).

And as can be seen in Model 3, the "Unofficial information" variable, which measures the extent to which one uses the Internet or gets news from international media, does not significantly change the effect of education, contrary to the case of authoritarianism. This reflects the difference between authoritarianism and SDO; authoritarianism, as socio-cultural conservatism (Duriez and Van Hiel 2002), is affected by increased exposure to information and rich frames of reference, whereas SDO, having a direct relationship with economic conservatism, does not change through such a channel.

Another notable pattern revealed in this analysis is the highly significant effect of household income, which shows that there is a negative association between the SDO scale and family income. There is not enough information to come to a conclusion on the relationship between income and SDO in past studies, since past studies have shown mixed results that depend on contexts (i.e., different countries and groups; see Sidanius and Pratto 2001:82). I suggest that the significant negative association between family income and SDO revealed in this analysis can be understood by considering higher family income as a factor that decreases perceived risk and insecurity. As Duckitt and Sibley (2009) point out, SDO originates from the worldview that regards the social world as a competitive jungle, and such motivational bases lead to the stronger level of SDO. I suggest that the higher level of family income can attenuate the feeling of economic insecurity and threat perceived by individuals, which satisfies their underlying existential motives that would otherwise enhance aggressive and hostile attitudes in intergroup conflicts. Such an effect of underlying risk perception is also confirmed in Model 4, which includes a variable on people's family economic prospects for the next five years. It shows

that people's optimistic expectations for their family's upward mobility has a significant negative relationship with their SDO.

In both analyses of determinants of authoritarianism and SDO, the significant effect of education is consistent throughout all models, confirming that education has a critical effect in determining individuals' psychosocial dispositions in China.

Conclusion

Why people in the lower classes often exhibit conservative attitudes toward inequality is an important and longstanding puzzle for social scientists (Kelly and Enns 2010) because it entails workers betraying their own vested interests in the redistributive political system. Facing this puzzle, sociologists have not paid sufficient attention to the psychological factors that affect such attitudes and how such factors are influenced by social contexts. Much of the past discussion has centered on the role of socioeconomic cleavages, and even when the role of culture and ideology is discussed, social psychological factors that constitute and sustain such ideas and beliefs have been underspecified.

Filling such a gap in the literature and bridging sociological and psychological approaches to inequality, this study makes the following contributions. First, findings from this study demonstrate the role of psychological mechanisms often neglected in past sociological scholarship on the determinants of political-economic attitudes. It shows that authoritarianism and SDO affect attitudes toward inequality and redistribution, and the difference between rural and urban in the patterns of such psychosocial dispositions is attributable to the highly significant effect of education. Also, the Chinese example suggests that state policies can condition the social background for the operation of social psychological mechanisms. The geographical

distribution of authoritarianism and SDO among Chinese citizens is affected by unequal conditions of educational opportunity between rural and urban areas, which are the combined outcome of socialist legacies (i.e., the *hukou* system) and the state-led post-reform development strategy that disproportionately benefited the urban area. Because rural residents have considerably limited educational opportunities in comparison to urban citizens, the average level of the two psychosocial dispositions is relatively higher, which results in more tolerant views of inequality among the rural population.²⁶

The study also contributes to a better understanding of popular attitudes toward inequality in China and offers political implications for today's Chinese society. A number of studies and observations on Chinese society have pointed out that the level of income inequality has reached a danger zone, but few of these studies actually investigated the social psychological characteristics of popular attitudes toward inequality. By shedding light on the role of psychology of inequality, this study provides an insight into the counter-intuitive picture of rural residents' relatively conservative opinions. As with past studies that showed rural citizens' relatively tolerant attitudes towards distributive justice, this paper presents a cautiously optimistic prospect for the primary goal of today's China, namely the maintenance of social stability. The results suggest that the disadvantaged groups in Chinese society will not furiously attempt to subvert the status quo in the immediate future. This prognosis, however, is only a tentative one. Past studies suggest that authoritarianism and SDO are subject to change through situational cues, and moreover, they have opposing elements in their internal dynamics; the

²⁶ It needs to be mentioned that a large part of the popular protests in China has been undertaken by rural farmers in the countryside, particularly since the 1990s, but that does not mean that farmers are more prone to engage in protests than urban citizens. The source of most mass protests in the countryside is caused by much more problematic issues peculiar to rural areas, such as unfair compensation for appropriation and confiscation of property and unjust land seizures by local authorities, not by rural citizens' attitudes toward income inequality or rural-urban disparity.

psychological energy that constrains authoritarian attitudes to obedience and submission can turn its current to converge on *anti*-authoritarianism (Perrin 2005), and the SDO of subordinate groups can transform from the legitimization of intergroup hierarchy to hostile attitudes against outgroups (i.e., dominant groups). Thus, although the findings of the present study corroborate the claim that today's Chinese society is not a "social volcano" (Whyte 2010), it should be noted that the effects of psychosocial dispositions may show complex dynamics in the future.

Finally, despite the China-specific contexts brought into the analysis, this paper offers general theoretical insights into the mechanism of social psychological legitimation of inequality. Specifically, it provides a new way to understand and approach authoritarianism and SDO in sociology by treating them as the joint product of motivated social cognition and political-cultural schemata. The findings of this paper show that the interaction between the two factors is affected by one's level of education and institutional conditions associated with the educational opportunity structure. This paper also suggests that the manifestation of authoritarian and social dominance motives as political-cultural ideas in society is dependent on historical contingencies and momentous social events that shape the political and cultural authority structure in society and define in-groups and out-groups (e.g., the Cultural Revolution in Mao-era China in the late 1960s and the post-September 11th sociopolitical discourse in the United States). The paper also presents a novel analytic strategy for utilizing large-scale social surveys to reflect individuals' psychosocial dispositions and using social survey items to grasp context-dependent, group-specific dispositions.

In future studies, the complex and dynamic patterns of interaction between micro and macro factors (i.e., motivated cognition, cultural repertoire, and institutions) need to be further explored in order to concretely account for the attitude formation process. These studies can

benefit from looking at how the interaction of specific cultural models and schemas concerning inequality with institutional forces such as educational systems, electoral politics, welfare policy, immigration policy, labor markets, and political or religious authority structures can mold, enhance, or depress authoritarian attitudes and social dominance orientations. Such future studies will improve our understanding of the mechanism of how individuals' legitimation of inequality is affected by varieties of cultural and institutional conditions.

Chapter 4

Reasoning and Attitudes toward Distributive Justice

This chapter focuses on the realm of reasoning in the AMR framework and examines the characteristics of individuals' reasoning about inequality and distributive justice by analyzing social survey data. Undoubtedly, attitudes, beliefs, and opinions on social issues are outcomes of a certain level of reasoning, which is humans' distinct mental power of conducting deduction, induction, causal inference, decision-making, calculation, and so on. Although other animals such as nonhuman primates show some degree of reasoning, their reasoning abilities are never close to humans' capacity to process complex information based on high-level cognition, particularly guided by language.

In philosophy and sociology, reasoning is often conceptually distinguished into two kinds, practical reason and theoretical (speculative) reason: roughly, the former governs our action and intention and the latter marks our logical thinking and beliefs. In sociology, the idea of practical reason has been strongly associated with the perspective of Bourdieusian practice theory, which views practical reason as reflection of individual- or collective-level habits constituted by social relations such as field and capital. In such conceptualization, the sociological perspective on reasoning is largely silent about theoretical, speculative reason and focuses on practical reasoning as individuals' embodied dispositional potentialities that reproduce objective social relations (Bourdieu 1998).

Although this kind of perspective is useful for grasping the culturally embodied and socially embedded nature of reasoning and provides an effective critique of rational action

theory, it sheds light on only limited aspects of human reasoning because it holds its primary interest in revealing the characteristics of practice, rather than focusing on the process and dynamics of reasoning *per se*. Sociological theories, to move away from economic and utilitarian views on the mechanism of social action, took the spotlight from the process of reasoning to other aspects of reasoning that defy the utilitarian means-ends framework, such as the *habitual* aspect of reasoning (practice theory and pragmatism), *normative* orientations for social action (e.g., Talcott Parsons), or the *creative* character of human action (e.g., Hans Joas, John Dewey). And in doing so, little attention has been given to the study of reasoning. Admittedly, the theoretical and speculative aspect of reasoning has not been completely ignored in sociological theory (e.g., rational choice theories). Even those studies, however, were primarily interested in showing the mechanism of how individuals' rational action can lead to (often unintended) aggregate phenomena, under some degree of external constraints, in organizations, collective actions, economies, or social systems, rather than focusing on the characteristics of reasoning itself (although sometimes strong versus weak rationality was differentiated) (see Goldthorpe 1998).

The problem with treating practical and theoretical reason separately is that actors' actual reasoning process is usually the joint outcome of both kinds of reasoning, and the two share a number of common elements. Our theoretical reasoning often shows habitual, semiautomatic, reflexive (rather than reflective), and situation-dependent characteristics, and such reasoning is also often motivated by underlying intentions, which constitute the necessary condition for practical reasoning. On the other hand, practical reasoning is usually guided by speculative, theoretical reasoning such as causal understanding of how the world works, reckoning expected utilities, and tacit mental processes that consider probabilities of events coming into action. Also,

some common underlying elements, such as the pursuit of explanatory coherence, are relevant to both kinds of reasoning (Harman 1976). In this light, dividing reason into two separate domains of theoretical and practical reason is not a very useful or accurate model for understanding how reasoning actually works, unless we are just interested in looking at some very rare cases where only one of the two styles of reasoning is exclusively dominant. Moreover, the dichotomous distinction is implicitly based on some questionable assumptions of Cartesian dualism between mind and body (Bourdieu and Wacquant 1992) or between mental action and physical action.

Sociological literature on reasoning also confronts other kinds of limitations; the studies are sometimes weakly organized with one another, the connection between the studies is too loose to provide a coherent body of literature, and the literature suffers from the paucity of empirical works that directly tackle the problem of reasoning. In this chapter, drawing on works from multiple disciplines, I will provide an alternative framework for theorizing reasoning into social theory and apply the conceptual ideas to an empirical investigation. First of all, rather than straddling the dichotomous distinction between theoretical and practical reasoning, I will base my discussion of reasoning on two kinds of fundamental orientations of reasoning, which are sensemaking and decision-making. Then I will discuss how the two functions of human reasoning can be understood as a sociologically useful concept of *lay theories*. After such conceptual discussions on reasoning, I will turn to the empirical case, which examines people's opinions about economic inequality and distributive justice in China; show what kinds of lay reasoning are employed in their attitudes and beliefs about inequality; and demonstrate how such reasoning is marked by several important characteristics of lay theories on inequality. For empirical analysis, I make use of Bayesian network analysis, in order to reveal the map of people's lay theorizing about various aspects of distributive justice.

The Two Functions of Reasoning: Decision-Making and Sensemaking

In this and following sections, I will discuss how we can approach the problem of reasoning in a step-by-step process. First, I contend that reasoning serves twofold goals of decision-making and sensemaking. Then I explain how both decision- and sense-making can be understood by the idea of “lay theory” (Furnham 1988, 2000; Ostertag 2010; Ji 2008; Levy, Chi, and Hong 2006).

Decision-making refers to the conscious and unconscious process of conducting action or arriving at a conclusion among possible alternatives. It involves balancing costs and benefits of possible outcomes, and considering weights and probabilities of relevant factors. Studies on how people make decisions had been predominantly based on normative utility theory and formal models. In the utility framework, decision-making is understood as a process of weighing costs and rewards associated with an action, taking probabilities and weights into account. Inevitably, some unrealistic assumptions underlying such a view attracted criticisms along the way, and alternative theories with more realistic assumptions emerged, such as subjective utility theory (see Tallman and Gray 1990). The most successful and widely accepted alternative is Simon’s (1947) behavioral model of rational choice. In this theory, individuals are described as information processors, and due to their limited capacity in information storing and processing, individuals act as decision “satisficers” rather than utility maximizers. Hence, decision-making is accomplished out of the trade-off between speed (or efficiency) and accuracy (or cost). This trade-off is often regarded as some sort of “optimization” under constraints, but such an account distorts the idea of bounded rationality.²⁷ Actors cannot “optimize” their behaviors when they

²⁷ In one of his personal conversations, Herbert Simon even once (jokingly) said he considered suing the authors who misused his theory of bounded rationality in such a way (Gigerenzer 2004: 391).

have incomplete information or when the situation is unfamiliar, namely when they don't know what they don't know. So the optimization perspective is actually based on almost equally unrealistic assumptions as the theory based on perfect rationality.

While Simon's model of bounded rationality has been widely studied and used for decades, the center of decision-making studies has gradually moved from mathematical and statistical models to the psychological end (Weber and Johnson 2009), where dual-process models of decision-making, reasoning, and social cognition have made significant contributions (Evans 2008; Ferreira et al. 2006; Sanfey and Chang 2008). Although many kinds of dual-process models have been proposed and each focuses on different aspects of our mental process, they commonly share the idea that there are two kinds of information processing: (1) unconscious, automatic, hot, rapid, heuristic, intuitive, and impulsive system-1 and (2) conscious, deliberative, cold, slow, analytic, and reflexive system-2. Because system-1 has a higher capacity than system-2, much of our information-processing and decision-making runs on system-1.²⁸

Besides these psychological approaches, sociological studies on practical reasoning have also tried to show that decision-making cannot be reduced to the rationality dimension. One of their focuses that differs from psychological studies is their heavy attention to body and

²⁸ While the dual-process model has gained popularity, particularly during the last 10 years or so, an increasing number of studies have detected some critical problems with this simple binary model. For example, several studies (see Evans 2008, 2012) have pointed out that a strict dual-process framework is misleading because system-1 and system-2 actually share many common features that were once regarded as belonging to only one of them (e.g., cognitive biases, heuristic processing), and the properties of the two systems proposed by many psychological studies cannot be properly mapped onto the dichotomous framework, which suggests alternative frameworks based on a dynamic graded continuum (Cleeremans and Jiménez 2002) or single system accounts (Osman 2004). Because each system is based on a mixture of different kinds of information processing systems, the overall system should be conceived of as multiple processes, rather than a simple binary system. Even further, the complex and context-dependent relationship between the currently conceived dual processes also complicates the issue, as explicated by default interventionist and parallel competitive accounts. For this reason, Evans (2008) suggests that we use a different terminology of "type 1" and "type 2" for analytical distinctions, rather than using the word "system" (although he admits the limitation of the new wording at the same time).

embodied habits, whereas dual-processing accounts in psychology are more interested in reasoning, judgment, and social cognition. On the other hand, in constructing an integrative theory of action, practice and pragmatist theories tried to overcome and avoid the dichotomy of mind and body (Bourdieu and Wacquant 1992; Joas 1996).

Overall, cognitive psychological studies of dual-process models have shown that the decision-making process rides on the interplay between two different types of information processing systems, and the sociological theory of practice and pragmatism has shown the primacy of embodied habits and dispositions shaped by structural and situational conditions. Despite some critical differences,²⁹ the cognitive psychological theory and practice/pragmatist theory seem to be in a reachable distance from each other (Lizardo 2012; Vaisey 2009). They commonly provide a more comprehensive picture than utility-based theories to describe how decision-making takes place in directing our action and thinking.

On the other hand, the idea of *sensemaking* refers to individuals' mental activity of, literally, the making of sense (Weick 1995), thereby rendering meaningful and coherent understanding of one's perceived environment and experiences. Through various kinds of mental work such as synthesizing information, extracting cues, framing situations, explanations, and self-reflection, actors engaging in sensemaking impose meaning on their environments in the way they make sense, often collectively and retrospectively. Compared to decision-making, sensemaking deals with meaning, cognitive frame, identity, reflexivity, and explanation. Without

²⁹ One important difference is that pragmatism and practice theory try to avoid or overcome any kind of dualism (especially mind vs. body) in constructing a sociological theory of action, whereas the dual-process theory assumes the existence of two distinct kinds of information processing systems. In order to bridge this gap, some sociological studies (Vaisey and Frye, forthcoming; Vaisey and Lizardo 2010) suggest that the holistic approach championed by Bourdieu and Wacquant (1992) can be strengthened and reformulated by incorporating the analytical distinction between type 1 and type 2 cognition while still discarding Cartesian dualism. I basically sympathize with this idea, although the success of such an approach would depend on the future development, revision, or dismissal of the *dual-process* theory in psychology.

proper sensemaking, actors' perception of their social environments remains disintegrated and meaningless, which invites feeling of anxiety and insecurity. Due to actors' cognitive motivation to frame their experiences and existential motivation to retain ontological security, the activities of sensemaking as part of actors' practical reasoning emerge to introduce meaning and order to their experiences.

Weick (1995) summarizes seven key properties of sensemaking, and thus explains that sensemaking is (1) grounded in identity construction, (2) retrospective, (3) enactive of sensible environments, (4) social, (5) ongoing, (6) focused on and by extracted cues, and (7) driven by plausibility rather than accuracy. These characteristics of the sensemaking process remind us of the key ideas in the pragmatist theory (Weber and Glynn 2006). For example, the theories of sensemaking and pragmatism commonly share the view that action is part of an ongoing process, rather than being hinged upon isolatable sets of "means-ends" (Whitford 2002). And as Weick (2006) said, the pragmatist perspective of "order-interruption-rediscovery" is sensemaking in a nutshell (p. 1731).

One of the main differences between sensemaking and decision-making can be found in their focus on different temporal points in actions; sensemaking mostly occurs *before* decision-making, providing the epistemic basis for action, or *after* an action to retrospectively frame the experience or an event. Thus, the action led by decision-making is understood, interpreted, and framed by the sensemaking activity.

Individuals as Lay Theorists

Then what is the most important element shared commonly by sensemaking and decision-making that affects both processes? It is actors' intuitive, folk understanding about how

the world works; becoming a social actor is enabled by holding theoretical understanding about the social world and internalizing such tacit theories in one's causal perception of experiences and observations. Simply speaking, humans are lay psychologists, lay sociologists, lay meteorologists, lay economists, lay moralists, lay philosophers, and so on. Such theoretical understanding is often far from an objective, scientific theory but is an informal, intuitive, naïve, everyday understanding of how things work, which is largely mediated by commonsense reasoning and serves motivational needs for the perceiver.³⁰

Studies on “lay theories” have been concentrated in social psychology (see Furham 1988 and Hong et al. 2001). The literature has started as study on the role of commonsense psychology (for example, Heider 1958), which found the importance of commonsense beliefs and understandings in determining people's perception of the social world, events, and interpersonal relations. The idea of lay theory is essentially similar to other concepts such as background beliefs, cognitive frames, and causal attribution, but the concept is particularly useful since it focuses on individuals' tacit mental process of theorizing and studies how people explain: it shares similar insights with ethnomethodology or other sociological theories (Martin 2011) that question how people “explain” things, while sociologists generally try to explain people's “behaviors.” Although lay theories are basically novice, non-scientific, folk theories by definition, lay common sense and “scientific” arguments often share more commonalities than differences (Furnham 1988: 207).

How do decision-making and sensemaking exactly fit into this idea of lay theory? In the case of sensemaking, it is clear that construction of lay theories is for epistemic integration,

³⁰ There are several underlying motivations that fuel the engine of reasoning, such as existential motivation to have a sense of ontological security in a protective cocoon (Giddens 1984), cognitive motivation to understand and make sense of one's environment, and motives for self-esteem and self-presentation (Hewstone 1983; Furham 1988).

which serves to make sense about individuals' social world and their experiences effectively and efficiently. The cognitive effort to make sense of new or familiar environments is guided by individuals' implicit taxonomies of their environments. Similar to the role of sensemaking, lay theories play a functional role that imparts stable, predictable, logically consistent, cause-and-effect structure to one's perception of the social world (Furnham 1988; Ostertag 2010). Lay theories are used not only to construct such lay epistemology but also to justify people's behaviors or social realities. Thus, the whole process of sensemaking is basically aimed at constructing and reconstructing one's lay theories. And such lay understanding and sensemaking often rely on "private/internal speech" (Vygotsky 1934) and "dialogical self" (Peirce 1934; Wiley 2006): the understanding is internalized through egocentric communication with one's self and stored as tacit knowledge, which has theoretical resonance with pragmatist theory (see Wiley 2006; Somers 1994).

On the other hand, lay theories affect decision-making, since the decision-making process is dependent upon one's assumptions about expected outcomes, which are derived from their internalized causal models of the world: namely, theoretical understanding about how the world naturally works. In many contexts, the operation of decision-making has its roots in commonsense reasoning as discussed in ethnomethodology (Cicourel), or "ignorant othering" (Ostertag 2010), both of which are internalized (in Vygotskian sense) as the basis of decision-making. Ideas similar to ethnomethodological or Vygotskian perspectives are also proposed in studies on lay theories by Cameron et al. (2001) and Morris et al. (2001), who emphasized the importance of cognitive socialization of lay theories in developmental perspective (as opposed to nativist theories that focus on children's innate capacity to build their lay theories; see Hirschfield 2001 and Hong et al. 2001 for summary). Thus the decision-making process operates

based upon underlying knowledge structures existing in lay theories that preclude an infinite number of alternative possible hypotheses, confine the boundary of “rational” decision-making, and provide the logic of justification for the process and outcome of decision-making.³¹

Lay Theories about Economic Inequality and Distributive Justice

Based on the discussions provided so far, now I will more specifically focus on the problem of beliefs and attitudes about economic inequality and redistribution and how they are derived from people’s reasoning. Here I list several key lay theories used by people to construct and justify their ideas on distributive justice in three broad categories: causal attribution, lay macroeconomic theories, and moral reasoning.

Causal attribution of wealth and poverty refers to individuals’ causal perception of what determines that people become rich or poor. Attribution occurs as a semi-automatic process as part of social cognition oriented toward cognitive efficiency (Hollander and Howard 2000), and it often stems from individuals’ motivation to justify their position and avoid accusation (Heider 1958; Exline and Lobel 1999; Leach, Snider and Iyer 2002) or from socially prevalent intergroup stereotypes (Feagin 1972, 1975). In this study, I concentrate on internal and external attributions. Internal attribution regards the source of wealth and poverty as individuals’ differential levels of ability, talent, efforts, and work ethic, which backs the idea of meritocratic beliefs. By contrast, external attribution focuses on the influence of socioeconomic structure, discrimination, inequalities in family background, and other unfair sources of inequality. The pattern of

³¹ This treatment of reasoning as lay theory may be criticized for missing discussions on the characteristics of practical reasoning, particularly its embodied and habitual aspect. However, I view such a structured, semiautomatic, and reflexive feature of practical reasoning as the outcome of association (e.g., psychomotor association), rather than the function or dynamics of reasoning itself. In my AMR framework, the more or less durable and embodied habitual patterns of practical reasoning are not considered as attributes of reasoning, since such structural dynamics, strictly speaking, do not stem from reasoning itself but from associative networks discussed in the first chapter.

individuals' causal attribution often has a close relationship with their political stance and ideology, since it corresponds to their judgment about fairness, as empirical works show (Cohen 1982; Skitka and Tetlock 1992). The kind of attribution people make leads to different outcomes in perception of justice and preferences for social policies. For example, internal attribution of poverty causes negative attitudes toward the poor and opposing views about governmental redistribution policies (Ng and Allen 2005).

Lay macroeconomic theories are people's understanding and assumptions about how economy works and the relationship between economic inequality and macroeconomic performance, particularly economic growth or development. For example, the idea that inequality and development have a positive relationship is often accepted by many people, especially in developing countries. That is, people tend to internalize a development model that some level of inequality is inevitable and even justifiable for the sake of national economic development. Xie et al. (2012), based on a social survey conducted in six Chinese provinces, show that the majority of Chinese citizens tend to estimate the level of inequality of countries (i.e., China, Japan, Brazil, the United States, and Pakistan) based on their perception of the levels of development of the countries. Since most people do not have good foreknowledge about the exact level of inequality in those countries, they tend to project a high level of inequality to more developed countries and a low level of inequality to less developed countries. Xie et al. (2012) call this mechanism "societal projection" and discusses that such societal projection constitutes an important part of "developmental paradigm," which assumes that all societies go through similar stages of development. On the other hand, the positive relationship between inequality and development is justified not only by societal projection but also by the metaphoric idea of "trickle-down" economics tacitly immanent in lay economic theories; the development-induced

inequality will be eventually overcome because the wealth created by the rich will be, some day in the future, spread to people at the lower rung of society. This idea is well reflected in Deng Xiaoping's famous slogan: "Let some people get rich first" (*rang yi bu fen ren xian fu qi lai*). Besides this kind of developmental model, another lay economic theory widely internalized among citizens is the functionalist idea that differential rewards according to individuals' contribution, merit, and output are necessary for the development of society. Distributing resources to individuals equally would hurt the efficiency of economy because it would depress individuals' incentives and extrinsic motivation to maximize their potential and productivity. Although this theory possesses some underlying affinity with the internal casual attribution of wealth and poverty, the former is different from the latter in the sense that it justifies inequality on the ground of efficiency rather than fairness.

Moral reasoning is about determining what is right/wrong and what the right thing to do is. In past psychological theories, moral reasoning was regarded as logical, rational thinking that relies on the level of cognitive development (Kohlberg 1969; Turiel 1983). However, recent development in moral psychology sees that moral reasoning is largely driven and governed by underlying intuitions, emotions, and motivational bases, where reasoned judgment plays mostly the role of post hoc justification. Haidt's social intuitionist model (2001, 2007) and the dual process model of Greene and colleagues (Greene 2007; Greene et al. 2008), for example, show that moral reasoning originates from intuitive and emotional responses. Thus moral "reasoning" and intuitive moral "judgment" are conceptually distinct processes (e.g., moral judgment can occur without moral reasoning), but the boundary between the two is actually unclear and ambiguous (e.g., many kinds of moral "reasoning" are actually not different from intuitive moral judgment/responses). (See Paxton and Greene [2010] for more discussion.) Thus, by "moral

reasoning,” here I refer to a layman’s habitual and casual moral responses to everyday issues, particularly normative, moralistic justification of welfare policies and supporting the poor (Feagin 1975). Among various normative underpinnings of attitudes and opinions about inequality and welfare policy, the moral intuitions of care and protection (Haidt 2001, 2007) provide important moral imperatives that justify egalitarian policies and produce critical attitudes toward inequality. Such moral intuitions affect lay moral reasoning. But not all types of moral reasoning are associated with egalitarianism. People often think about moral consequences of welfare policies in terms of desert and fairness, which constitute the concept of deservingness of the poor for welfare support. And such moralistic approaches, which are often biased under the influence of prevalent cognitive frames or moral categories in society, view welfare programs as the cause of increase in a culture of welfare dependency and unemployment by providing welfare benefits to those “undeserving” poor who lack self-discipline and work ethics (Murray 1984; Steensland 2006, 2010; Massey 2007). It should be noted that moral reasoning is often dependent on causal attribution of wealth and poverty, since causal perception of societal outcomes affects one’s moral evaluation.

These three kinds of lay theories regarding individuals’ opinions and beliefs about inequality and distributive justice reflect that our reasoning stems from the intricate intertwinement between sensemaking and decision-making processes. Individuals’ sensemaking activity organizes various information, observations, experiences, and cultural ideas related to inequality, the rich, the poor, welfare, and redistribution into meaning networks that constitute the epistemic basis of our reasoning (Fiske 2012). On the other hand, relying on such cultural understanding of the social world, individuals make judgment to form an opinion or arrive at conclusions regarding each distributive justice issue and express their opinions.

Are Individuals Good Lay Theorists?

If ordinary individuals are equipped with some of these theories and wield them in their reasoning about inequality, how good are their reasoning skills? Are people capable of using such lay theories consistently in thinking through various kinds of issues related to distributive justice? Early political theorists in the early 20th century, who experienced the wave of totalitarianism, thought that the “masses” are incapable of independent, logical reasoning and are credulous and irrational (e.g., Arendt 1951). Later, some groups of political scientists (e.g., the “Michigan school” scholars) proposed a more nuanced but similar line of arguments contending that only political sophisticates have cognitive ability and political interests to hold consistent political attitudes (Campbell et al. 1960; Converse 1964), that there is no true preference in mass opinion and public opinion is merely a reflection of political elites’ discourse (Zaller 1992), and that individuals rely on “low-information” input in executing their reasoning about candidates and political issues (Popkin 1991). The public’s ignorance of social, political, and economic matters is also frequently emphasized as a well-established finding in political science literature (Ferejohn 1990; Kinder 1998; Luskin 2002), which is, according to Bartels (1996), “one of the best-documented features of contemporary politics” (cited in Friedman 2012: 1).

Given such characteristics of political beliefs and attitudes of lay people, how would their lay theories about inequality and distributive justice look? Studies on lay theories also emphasize that advanced economic theories (about inequality, development, and so on) are not well known or discussed by lay people. For most people, beliefs about political and economic matters such as inequality and redistribution are acquired through personal experiences or absorbing the

discourse presented in media (Furnham 1988: 148), and beliefs can even take an illogical form as long as they are functional for the perceiver (Hong et al. 2001).

In the empirical analysis in this paper, I will focus on the following questions to examine the characteristics of people's lay theories about inequality and distributive justice. First, can we find any of the three kinds of lay theoretical reasoning mentioned earlier (i.e., causal attribution, lay macroeconomic theories, and moral reasoning) in people's attitudes and opinions about inequality and distributive justice? Are their attitudinal responses toward individual survey items associated with one another in a way that reflects their sensemaking and decision-making (i.e., forming an opinion) about various domains of distributive justices? Second, does the overall configuration of individuals' lay reasoning show *logically* consistent and coherent structure? Or is the network of beliefs based on certain structures that reflect other kinds of consciousness and meaning structure that cannot be reduced to the narrow definition of logical thinking?

This analysis contributes to studying the characteristics of lay theories in the formation of public opinion, which has rarely been explored in past literature in sociology and political science (see Herbst 1998 for some discussion on the role of lay theory in public opinion). In the following sections, I will turn to our empirical case and begin with introducing the methodological strategy used to examine the properties of individuals' lay theories about inequality and preference for welfare policy.

Empirical Analysis

Methods

In order to examine the properties of lay theories on inequality, this study uses probabilistic graphical modeling, particularly Bayesian network (also called Bayesian belief network or probabilistic causal network) analysis.

Bayesian network analysis basically refers to the methodological strategy that combines graphical modeling with Bayesian analysis in order to analyze and graphically map the probabilistic causal dependency structure among a set of random variables included in an analysis. In the context of this study, the random variables are attitudinal responses, and their causal dependency structure reflects the attitudinal dependency structure in individuals' belief systems; the structure can be a form of deductive reasoning or attitude heuristics invoked by commonsense knowledge or intuitive judgment. Although Bayesian network analysis has been very rarely used in sociology and political science and limitedly in psychology, recently there has been rapidly growing interest in using it to model social cognition (see Lopez, Ramirez, and Casado 2012).

The causal structure is represented as graphical structure (G), which consists of vertices (nodes) and edges (arcs or links). Bayesian network analysis produces a directed acyclic graph (DAG) of the joint probability structure distribution induced by the model, which encodes individuals' attitudinal structure regarding inequality. To be clear, this graphical representation does not show deterministic relationship structure in reasoning process, but probability structure as a probabilistic model. That is, the Bayesian network model constructs a joint distribution structure over every combination of responses in N variables, according to which one can estimate posterior distribution of any X_j when the value of X_i is specified. Thus, analyzing attitudes with Bayesian networks means treating the multidimensional attitudes as complex probability distributions, thereby unearthing lay theoretical structure embedded in the

relationships among attitudes. Assigning probability structure (or stochastic structure) to the belief network reflects to what extent the level of uncertainty is strong in lay beliefs and arguments about distributive justice.

Finding the knowledge structure by factorizing a distribution using a graphical representation (network) is usually done by finding conditionally independent relationships among variables, where the concept of d-separation (direction-dependent separation; Pearl 1988) is used. Simply speaking, two nodes in the network, say X and Y, are conditionally independent, or d-separated in graphical tests, if every path from X to Y is blocked by a set of random variables Z in DAG.³² Conditional independence between two variables is presented as graphical segregation (i.e., no edge) in the visualized output, whereas an arrow (directed edge) from node A to node B indicates that B is causally dependent on A. Conditional independence tests using d-separation are used in various kinds of structure learning algorithms based on constraint-based algorithms, one of which is used for this study (specifically, the grow-shrink algorithm). Grow-shrink algorithm (Margaritis 2003) uses a fast and efficient algorithm to detect Markov blankets³³ of variables in Bayesian network. In my analysis, I used partial correlation test for the conditional independence method, which is widely used in constraint-based algorithms. Therefore, simply speaking, the results of Bayesian network analysis presented in this chapter can be understood as partial correlational relationship of distinct attitudinal responses.

On the other hand, even though Bayesian network analysis is often used for tackling causal relational patterns by using DAG and testing conditional independencies between

³² More specifically, X and Y are d-separated given Z when their connective structures are either serial ($X \rightarrow Z \rightarrow Y$; $X \leftarrow Z \leftarrow Y$) or diverging ($X \leftarrow Z \rightarrow Y$), or when the structure is converging and Z ($X \rightarrow Z \leftarrow Y$) is not conditioned on. See Pearl (2000) for a more detailed explanation.

³³ “Markov blanket” means a subset of nodes for a node X in a Bayesian network that consists of X’s parents, children, and children’s parents (see Pearl 1997).

variables, I do not use Bayesian networks in this study for illustrating *causal* relationships but rather for inferring individuals' lay theories and belief systems concerning distributive justice from the statistical relationships between attitude variables and projecting a holistic picture of people's belief systems regarding inequality.

By showing the dependency structure among a variety of attitudes and beliefs related to distributive justice, this method can infer how individuals' lay theories are organized in their belief system regarding distributive justice. This methodological approach has several advantages over other conventional statistical methods. For example, regression-based models are not suitable for examining the larger relationship structure among multiple variables where each variable can be an independent variable and a dependent variable at the same time. And path analyses or structural equation models are constructed based on the models already designed by a researcher's theoretical interest or hypothesis, while Bayesian network analysis is conducted by a data-driven approach, where the causal structure, inference, and representation can be automatically derived from data, although expert knowledge can be applied to the modeling. On the other hand, Bayesian network analysis is useful for investigating the whole dependency network of variables, in contrast to latent variable methods such as factor analysis or structural equation modeling that focuses on only the variables that contribute to latent factor structure.³⁴ Compared to the correlational network of variables shown by running RCA,

³⁴ More specifically, if a researcher's main goal is to find a certain latent variable that exists among individuals and show how such a latent variable is associated with other variables (e.g., socioeconomic variables), then factor analytic methods should be used (e.g., standard factor analysis or structural equation modeling). However, in doing so, the variables that do not contribute to factor structure are simply ignored and have to be excluded from the analysis. Also the researcher is forced to ignore each variable's uniqueness ("error") and just focus on the common variance (latent factor) shared among variables, even when different variables actually deliver substantively different messages. So when factor analysis is used, the researcher has to lose substantive information contained in data. Because Bayesian network analysis does not require such a procedure and simply shows dependency structure among variables, it can be more faithful to what the data present. (But, as mentioned above, it all depends on what a researcher's main research purpose is.) On the other hand, when some latent variable methods such as structural equation modeling is used, the researcher has to have a hypothesized model on (one-way) causal relationships

Bayesian network can show more distilled dependency structure among variables based on conditional independence tests (i.e., partial correlation in the case of this chapter). For more detailed explanation of Bayesian network analysis, see Koller and Friedman (2009) or Darwiche (2009).

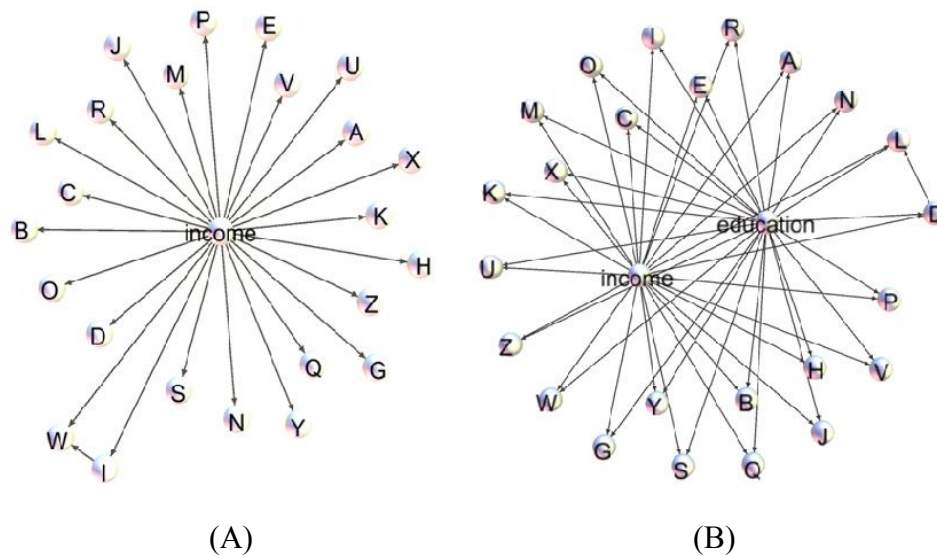


Figure 4.1 Hypothetical Belief Networks

Before getting into the actual analysis, let us start with some hypothetical examples³⁵ in order to see whether the Bayesian network model works correctly and produces reasonable results. Figure 4.1 shows two hypothetical examples of belief networks represented by Bayesian networks. For graph (A), I hypothesized a case where all individual beliefs are affected by income. In order to simulate such a case, I created 24 hypothetical random variables that represent individuals' beliefs, which are produced by a linear combination of randomly distributed income and residual errors ($N = 3,000$). The Bayesian network aptly shows that all

between variables and force it to modeling, while in reality there is often an endogeneity problem, which means there is a loop of causality (two-way relationship) between two variables. In Bayesian network, one can leave the causal direction between two variables undecided (undirected graph), so it can have more flexibility in dealing with the endogeneity problem.

³⁵ Bayesian network analysis in this chapter is done using the bnlearn package on R (Scutari 2010). The Bayesian networks produced by bnlearn is exported as a DOT file to Gephi for visualization.

random variables are causally influenced by individuals' income ($p < .001$), showing directed arrows from income to random variables. Because all variables are created as a function of income, there were significant correlations between the variables, but such significant associations are removed from the graph after conditional independence structure among variables is considered. The only exception is that the significant effect ($p < .01$) of variable I on variable W is produced by random chance under the joint uniform distribution situation.

Now let us examine another hypothetical case in which all beliefs and attitudes are produced by two factors, such as income and education. Graph (B) represents such an example, which consists of 24 random variables, income, and education. The random variables are produced by linear combinations of income, education, and residual errors, which are randomly generated. This output of the Bayesian network, again, shows a result consistent with the underlying dependency structure I used to create the belief network. All variables are significantly affected by income and education ($p < .001$), and there is no significant association between other random variables except for random chances ($D \rightarrow L; p < .01$).

Data and Variables

I use China Inequality and Distributive Justice Survey data (2009). (See Chapter 3 for information on the data set.) The data set contains an exhaustive list of survey questions regarding various dimensions of people's attitudes toward inequality, their attribution of wealth and poverty, and their preferences about redistributive policies. In the Bayesian network analysis, I use the following selected items that are directly or indirectly related to one of the abovementioned lay theories on inequality and distributive justice.

- Demographic variables: age, education, household income, Internet use, Communist Party membership, region (rural versus urban)
- Attitudinal responses (see Table 4.1)

Although demographic variables are not attitudes, they are included in the analysis to control for them in recovering dependency structure among attitude variables and also to show to what extent the dependency structure of attitudes is shaped by individuals' socioeconomic backgrounds.

Of course, there are some inevitable biases in constructing the list of variables, since variable selection depends on the researcher's interest and the availability of survey items. Nevertheless, the above set of variables covers most, if not all, of the widely discussed theories in sociological and political scientific literature on the determinants of attitudes toward inequality and redistribution: self-interest, relative deprivation, subjective utility, experience of past mobility, merit-based ideology, causal attribution, moral reasoning, developmentalism, and effects of various demographic variables including age, education, income, access to information (i.e., Internet), and political membership. Certainly the possibility exists that there are some hidden latent variables (e.g., personality traits) that affect multiple variables at the same time and that the Bayesian network model cannot reveal due to the limitation of survey items. However, strictly speaking, such a problem (i.e., an omitted variable) can also be a potential problem in most other methodological strategies that examine relationships between variables. Moreover, unless there is an obvious, easily recognizable third variable missing in the analysis, two variables connected in the Bayesian network reflect "meaningfully" associated ideas in individuals' lay theoretical basis of attitudes toward inequality.

Table 4.1 Attitudinal Responses of Survey Participants.

<i>Label</i>	<i>Survey Questions (abbreviated)</i>
national	Opinion on national income difference (1: too small–5: too large)
relative	Living standard compared with others in this county/city/district (1: much worse–5: much better)
mobility	Estimated family economic situation 5 years later (1: much worse–5: much better)
satisfied	Level of satisfaction with current living standard (1: very dissatisfied–7: very satisfied)
matthew	Recently the rich have become richer and the poor have become poorer? (1: strongly disagree–5: strongly agree)
powerful	Social inequalities persist because they benefit the rich and powerful? (1: strongly disagree–5: strongly agree)
unjust	The gap between the rich and the poor is just? (1: strongly disagree–5: strongly agree)
hardwork	Hard work is always rewarded? (1: strongly disagree–5: strongly agree)
opportunity1	People have equal opportunities to succeed? (1: strongly disagree–5: strongly agree)
opportunity2	The opportunities for someone like you to raise their living standard are still great? (1: strongly disagree–5: strongly agree)
ind_resp	It is his/her own responsibility to be rich or poor? (1: strongly disagree–5: strongly agree)
cause_poverty	Poverty is caused by lack of ability, talents, or efforts? (1: strongly disagree–5: strongly agree): mean score of two survey items
cause_rich	People become rich because of their ability or hard work? (1: strongly disagree–5: strongly agree): mean score of two survey items
cause_rich2	People become rich because of their connections or background? (1: strongly disagree–5: strongly agree): mean score of two survey items
Reward	People have incentives to work hard only when income differences large enough? (1: strongly disagree–5: strongly agree)
just_inequality	If there is equality of opportunity, differences between rich and poor are just? (1: strongly disagree–5: strongly agree)
prosperity	For the prosperity of the country, there must be big gaps in income? (1: strongly disagree–5: strongly agree)
freemarket	A free market economy is crucial to the economic development of our country? (1: strongly disagree–5: strongly agree)
poor_change	In 5 years the percentage of poor will? (1: decrease–3: increase)
state_min	State should ensure minimum living standard for all? (1: strongly disagree–5: strongly agree)
state_gap	State must work to reduce income inequality? (1: strongly disagree–5: strongly agree)
rich_duty	Rich have no obligation to help the poor? (1: strongly disagree–5: strongly agree)
poor_demand	Poor people have the right to demand help from the rich? (1: strongly disagree–5: strongly agree)
transfer	To satisfy everyone's needs, even if you must take from the rich to assist the poor, it should be done (1: strongly disagree–5: strongly agree)

One merit of analyzing individuals' lay theories using this approach is that it can examine the characteristics of people's lay reasoning before their underlying ideas and beliefs are captured in their discursive consciousness (Giddens 1984). People's narratives and verbal

explanations about their beliefs and ideas are often different from their practical consciousness, which often has a stronger influence on individuals' behaviors (Vaisey 2009). Employing a novel methodological approach, this study can tap into the structure of lay beliefs that are not channeled into individuals' discursive consciousness or into post hoc narratives or justifications. One thing I need to make it clear is that this study does not show the actual process of reasoning that happens when individuals take the survey, but instead reveals the characteristics of individuals' largely pre-formed lay theories about inequality and distributive justice, which are outcomes of their political-cultural understanding of how society and economy work and the characteristics of rich and poor people (i.e., sensemaking) and their mental activities of weighing evidence and using intellectual or moral judgment to form and express opinions (i.e., decision-making).

Findings

Figure 4.2 shows the Bayesian network of attitudes toward inequality and distributive justice. Each node in the network represents each survey item listed above, and edges represent statistically significant edges (Pearson's linear correlation, using alpha threshold: 0.05; the total number of tests run for learning the structure: 272,949). Two separated nodes in the graph indicate that they are conditionally independent; that is, the correlation between variables X and Y is not statistically significant when a third variable Z is controlled for. Although Bayesian network models use structure learning algorithms to determine the orientation of edges, namely the direction of causal relationship, I do not rely on such a method. There are three reasons. First, some variables are simply associated with rather than causally dependent on one another, when they contain very similar ideas (e.g., opportunity1 and opportunity2; cause_rich and cause_rich2)

or when their relationship does not imply causal or temporal order, so direction orientation is often neither necessary nor possible. Second, sometimes the causal direction can flow in both ways. For example, even a relationship that seemingly flows in one way, such as income and belief in merits, can be bidirectional; higher income can increase belief in merits, but also stronger belief in merits may cause difference in behavioral patterns leading to higher income. Since the data set used for analysis is cross-sectional, we cannot preclude the possibility of bidirectional relationship between most of the variables. Third, although structure learning algorithms determine the directionality of edges using direction orientation rules and model validation methods, they cannot produce a completely accurate picture of directionality among variables, and it often requires human interpretation in order to determine the direction of causal relationship.

Thus, rather than using DAG representation, I simply use the skeleton model, which leaves the directions undetermined, produced by Bayesian networks, using the Growth-Shrink algorithm.

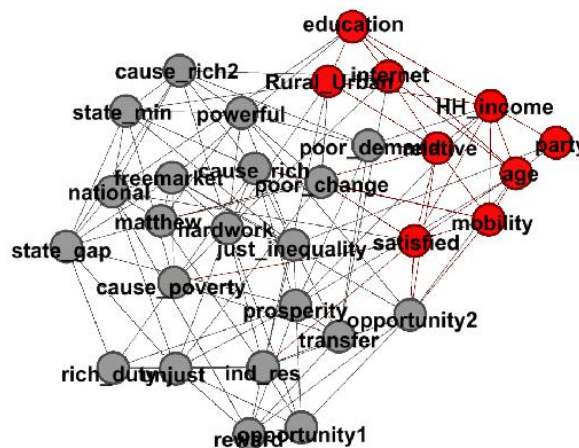


Figure 4.2 The Result of Bayesian Network Analysis (N = 2,494)

Figure 4.2 shows the result of Bayesian network analysis. As there are 30 nodes and 115 edges, it is impossible to examine its every individual relationship in this chapter. Therefore, I will selectively focus on a few kinds of aspects that particularly deserve more attention.

First, the overall configuration of Bayesian networks is featured as a single giant component with no disconnected nodes or isolated groups. This suggests that the 30 variables employed in the analysis are connected with one another either directly or indirectly as a single belief network. Another noticeable pattern shown in the figure is that the variables related to more or less objective conditions of respondents (i.e., age, income, education, party, internet, mobility, satisfied, and relative) form their own closely connected cluster at the right-hand side of the network, colored in red, while other subjective attitude and opinion variables form their own subgroup; most attitude variables are connected to a very limited number of background variables and show more significant relationships with other subjective variables. This indicates that individuals' objective conditions mostly have indirect, rather than direct, effects on individual beliefs and ideas through the chains of lay theories.

Next, the effect of income on attitudes merits examination. A number of past studies on people's attitudes and opinions about inequality and policy preferences hypothesized that income is one of the most powerful determining factors of attitudes toward inequality and policy preference, and many studies found a significant effect of income. However, do such findings necessarily mean that income has direct effect on every single belief, attitude, and opinion that shows significant associations with income? If that is true, the result of the Bayesian network would resemble the patterns exhibited in Figure 4.1; as individual attitudes are produced as functions of income in the simulated model, there are direct links between income and other variables, while there are no direct links between other variables except for random chances. The

result of the Bayesian network is shown in Figure 4.3. In sharp contrast to Figure 4.1, the household income variable has direct association with only two attitude variables: poor_demand and prosperity. All other variables significantly connected to the income variable are other background variables such as age, education, mobility, region, relative, party, and satisfied.

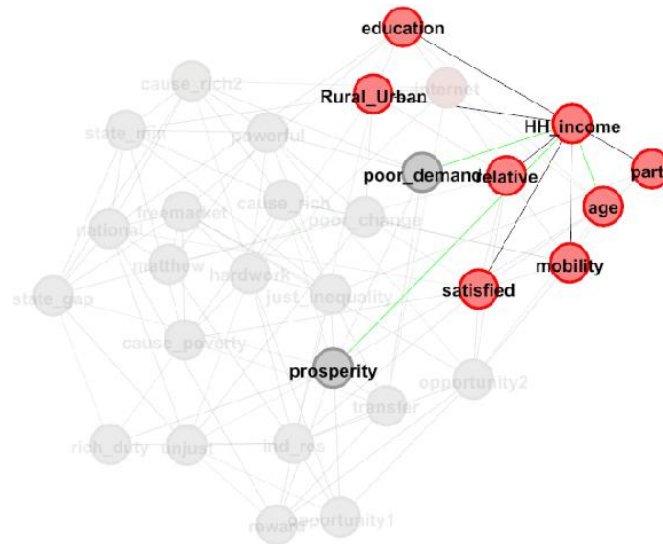


Figure 4.3 Household Income and Its Neighbors in Bayesian Network

The result strongly suggests that although one's (household) income can be a significant predictor for a number of attitudinal variables in statistical examination, such relationships may not genuinely stem from the effect of income *per se*, but rather from a chain of associative thinking and motivated reasoning that starts from a very limited number of ideas and beliefs directly influenced by income. The result also implies that individuals may be selfish, but they are not very good at being selfish. There would be basically two reasons. The first reason is that when individuals are prodded to express their ideas and opinions about inequality and redistribution, various factors such as intuitive reasoning, lay theories, emotions, limited cognitive attention, and so on can overwhelm the effect of one's level of income. Another

possibility is that people often do not know much about or do not much care about their actual, specific position in the income ladder of the whole society, which makes the effect of the income variable much less than prominent in attitude formation. In this light, what is probably more interesting than the effect of income itself would be the subjective experience and feeling related to one's income, such as one's subjective, relative living standards (relative), mobility experience (mobility), and satisfaction with living standards (satisfaction). According to the result, however, each of these also has a generally limited impact on attitude variables. Overall, the result provides us with a new perspective on how economic background affects attitudes and opinions, with findings that challenge past studies.

Figure 4.4 focuses on variables related to causal attribution of wealth and poverty. Three variables are employed to reflect people's causal perception: merit-based explanation of wealth (i.e., meritocratic/internal attribution; `cause_rich`), external attribution of wealth (i.e., emphasis on connection and family background; `cause_rich2`), and merit-based/internal explanation for poverty (`cause_poverty`). The result shows that none of the three causal attribution variables, namely `cause_poverty`, `cause_rich`, and `cause_rich2`, are directly influenced by one's household income; instead they are associated with other background variables such as mobility (\rightarrow `cause_rich`), Internet (\rightarrow `cause_rich2`), and living standard satisfaction (\rightarrow `cause_poverty`). Such a result suggests that individuals who experience upward mobility are more likely to support the idea of merit-based explanation for wealth, individuals who have access to the Internet are more likely to think rich people accumulate their wealth through connections and family background, and people who are more psychologically satisfied with their living standards tend to make individualistic causal attribution of poverty. Again, the disconnect between the income variable and three causal attribution variables suggests that income itself is not a powerful influencer that

determines people's causal attribution patterns, but rather it affects attribution in an indirect way, and each type of causal attributional thinking is to large extent independent of objective social backgrounds. Another intriguing pattern is that each type of causal attribution is triggered by somewhat different kinds of experiences.

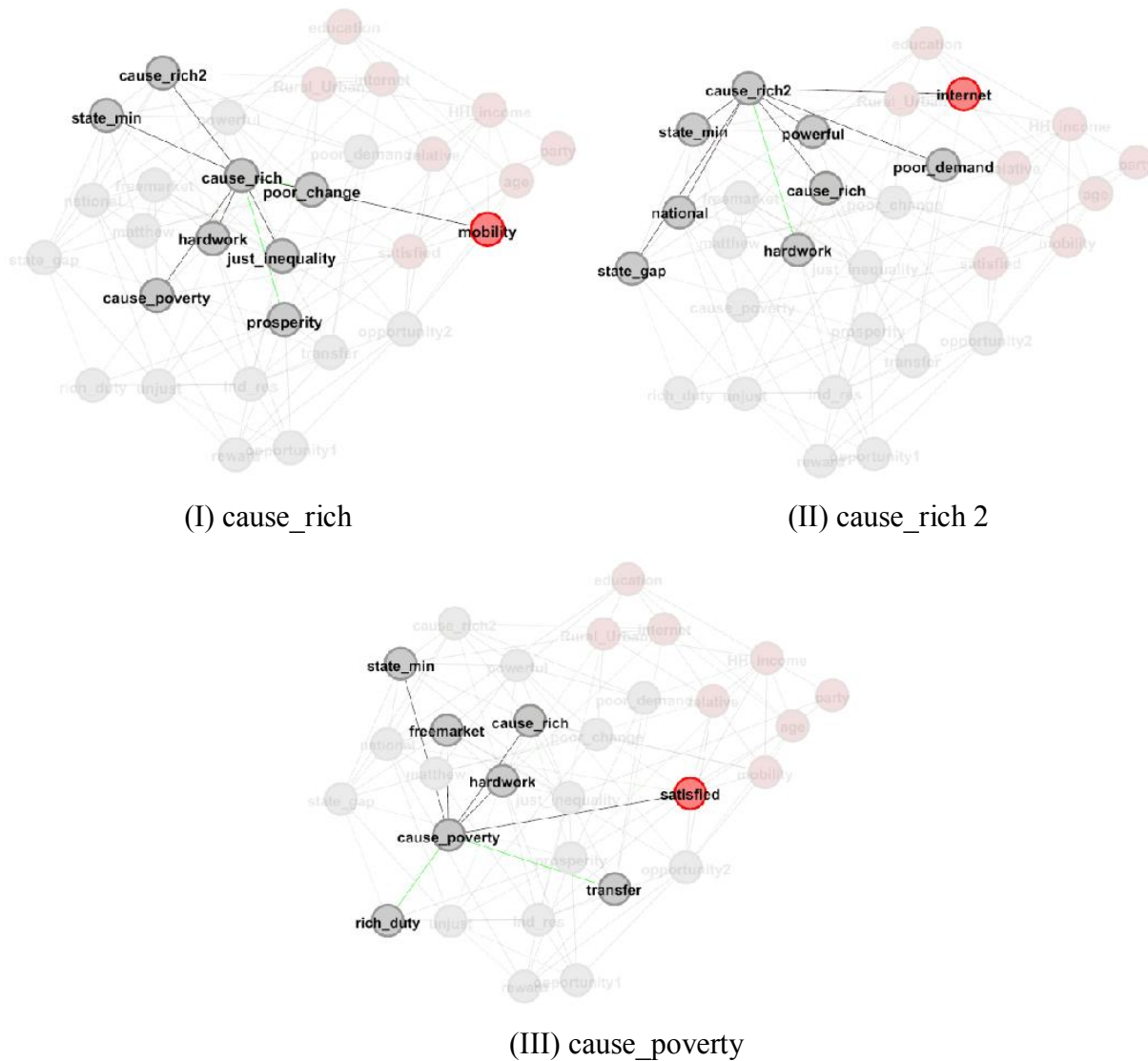


Figure 4.4 Causal Attribution of Wealth and Poverty

Besides, all tree causal attribution variables are commonly connected to state_min (opinion about whether state should ensure minimum living standards for all) and, somewhat

obviously, to hardwork (opinion about whether hard work is always rewarded). The result suggests that the issue of ensuring minimum living standards is significantly determined by the style of individuals' causal attribution.

On the other hand, there are three cases of association between variables that show somewhat puzzling results. The first one is the significant positive partial correlational relationship between *cause_rich* (internal attribution of wealth) and *cause_rich2* (external attribution of wealth) (similar result was also found in Whyte [2010:111]). There is no way we can directly test if such a significant association is due to acquiescence bias, but if we assume it is not due to a survey bias, then this result presents an interesting implication, which is that among individuals who show critical attitudes about how people become rich, many of them actually subscribe to an individualistic, merit-based perspective on inequality at the same time. Similar curious patterns are also found for internal attribution of poverty (*cause_poverty*): stronger internal attribution of poverty is significantly and positively associated with *state_min* (State should ensure minimum living standard for all) and negatively associated with *rich_duty* (Rich have no obligation to help the poor) while holding all other variables in the analysis constant. In some sense, explaining such paradoxical patterns is not too difficult. Unless internal attribution of poverty is ideologically connected to anti-egalitarianism, it actually logically makes sense to think that society should provide more support for poor people because they lack ability or talent. What is important is the political or ideological implication of these relationships. While *cause_rich2* (external attribution of wealth) is only associated with egalitarian attitudes (except for its association with *cause_rich*), variables that reflect merit-based causal attribution (*cause_rich* and *cause_poverty*) are linked to both egalitarian ideas (*state_min* and *rich_duty*) and anti-egalitarian ideas (*transfer*). Collectively, these results show that Chinese

citizens, in general, accept both individualistic and structural explanations for becoming rich and also show that merit-based perspective is not ideologically attached to conservative or anti-egalitarian views in China.

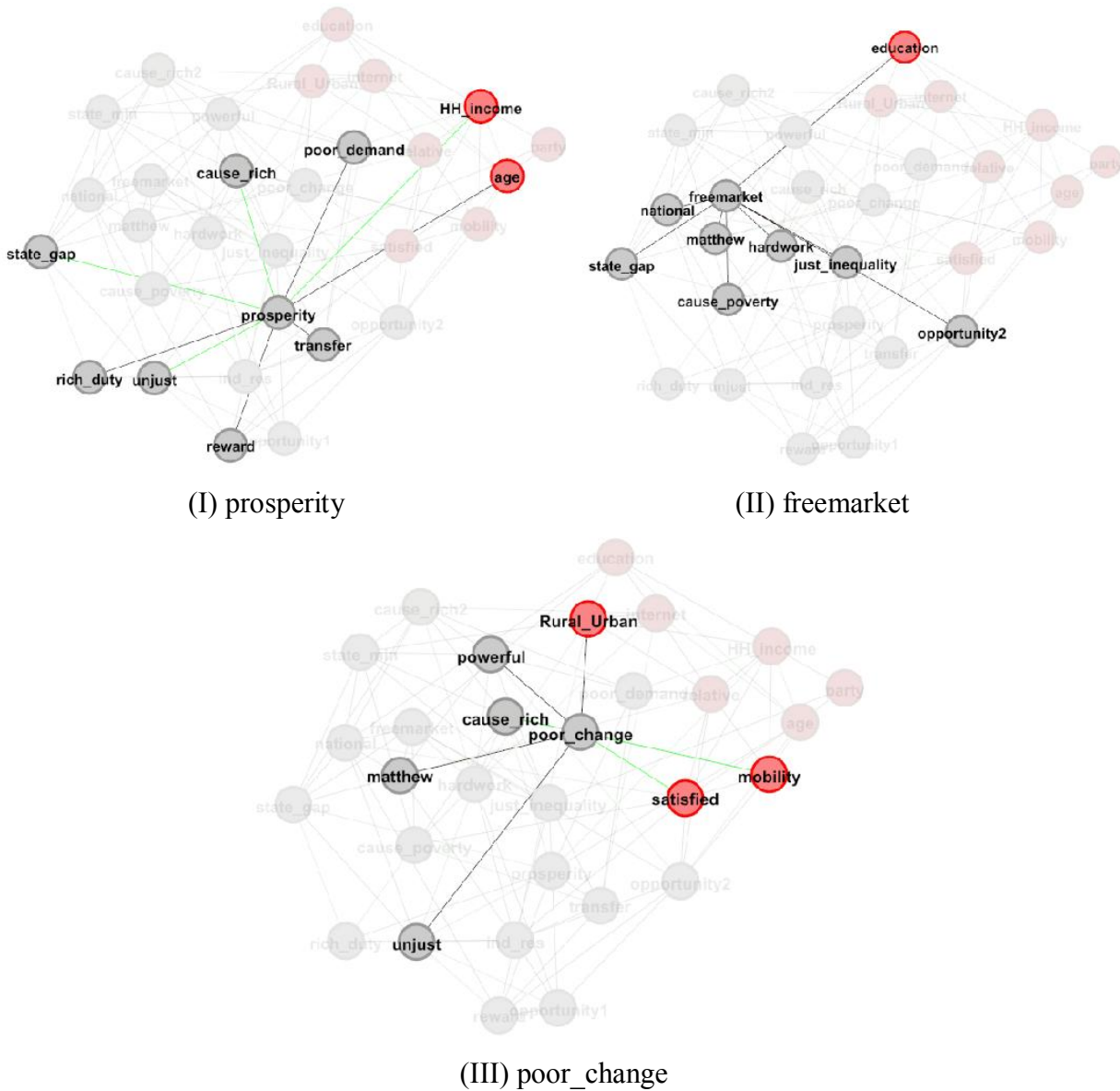


Figure 4.5 Lay Macroeconomic Reasoning

Next, I will turn to the lay macroeconomic theories mentioned earlier, focusing on three variables, which are prosperity, freemarket, and poor_change. The variable prosperity (Figure 4.5-I) is about whether there must be big gaps in income for the prosperity of the country. This is related to the idea of developmentalism that Xie et al. (2012) found among Chinese citizens. This idea holds that development and inequality have an inevitable and positive relationship, which often feeds the collectivist ideology of national development, and tends to provide a political and economic logic for the justification of income disparity in developing societies. This variable turns out to show interesting and somewhat counterintuitive patterns in several ways. Most of all, the result shows that it has a negative association with household income, which means that people with less income are more likely to support the idea of necessary inequality for national development. Such a curious pattern is also revealed in the relationships between prosperity and poor_demand and transfer: stronger support for the idea that inequality is necessary for prosperity accompanies more egalitarian attitudes as to the two questions related to helping the poor. However, at the same time, the prosperity variable shows significant association with anti-egalitarian policy preferences (i.e., negative association with state_gap and positive association with rich_duty).

Some interesting patterns are also found with regard to the freemarket variable (Figure 4.5-II), which asks whether a free market economy is crucial to the economic development of China. Although the question does not directly tap the problem of inequality, its association with other attitudes reflects individuals' tacit sensemaking that organize opinions about free market economy and attitudes toward tackling economic inequality together into their commonsense reason (Garfinkel 1967). Similar to the case of prosperity, the freemarket variable shows some contradicting patterns: while the freemarket variable is associated with four variables of

individualistic attribution of inequality that justify the status quo (hardwork, cause_poverty, just_inequality, and opportunity2), it is also associated with egalitarian views when it comes to inequality (state_gap, national, matthew). This interesting and paradoxical relationships between lay macroeconomic theories and moral reasoning about egalitarian redistribution provide important political implications with regard to the political-economic consciousness of ordinary Chinese citizens: their lay macroeconomic theories offer an important source of legitimation of the status quo of society. Even when individuals strongly support the idea that the state should help the poor, they are *more likely* to adopt the idea that inequality is an inevitable outcome of economic development of the nation, which is necessary for national prosperity. So individuals' support for egalitarian policies should be interpreted as favoring a liberal welfare state style approach in dealing with inequality, rather than radical, "soak the rich" approach (Whyte and Im 2013; Shapiro 2002). Moreover, the result shows that individuals with lower income are more likely to support the "development paradigm" (Xie et al. 2012), which suggests that the rapid economic growth and transition of the country is perceived as new opportunities for upward mobility in the eyes of people in lower socioeconomic positions. This is a strong signal that developmental paradigm plays the role of justifying income inequality for lower income individuals in China.

Finally, the poor_change variable (Figure 4.5-III) is about the expected trend in the percentage of the population that is poor in the next five years, with higher values indicating an increase in the percentage. There is no particularly counterintuitive aspect in the association of this variable with its neighbors. However, to what attitudes it is *not* connected has interesting implications, since it has been argued that the idea of poverty reduction and the expansion of new opportunities for poor people have had the social psychological effect of alleviating the

public's discontent with rising inequality in China. However, the result shows that `poor_change` itself does not have a direct influence on attitudes related to redistribution or inequality, but it does have an indirect effect through a multistep process by being associated with individuals' evaluation of the justness of inequality (e.g., `unjust`, `matthew`). This result indicates that optimistic projection of future trends in poverty does not automatically translate into positive attitudes toward inequality by itself, but its effect is channeled through one's evaluative stance toward whether the current inequality is just and fair.

Overall, the counterintuitive patterns uncovered in the analysis show that lay people's understanding about these various issues is far from a clear-cut reasoning that is exclusively ideological or completely self-serving. The patterns of their lay reasoning tend to be an inclusive plaza of ideas where mutually conflicting ideas can cohabit rather than a competitive arena for formal, logical, exclusive arguments. This suggests that a layman's reasoning about social issues takes the form of pragmatic, commonsense evaluation, which can embrace opposing ideas together (e.g., "Inequality is necessary for development" and "The poor have the right to demand from the rich"), and it is not rendered by a strong political ideology. It is important to note that such a counterintuitive picture is particularly more salient when it comes to lay macroeconomic theories.

On the other hand, the nodes that have the largest degrees (i.e., the number of links to other nodes) are `hardwork` and `ind_res` (both have degrees of 11). But such a high degree is partly due to the number of similar survey questions included in the analysis (such as causal attribution, opportunity, etc.), so looking at the degree is not very meaningful or useful for understanding the pattern. So instead I focus on variables that are specifically pertinent to the issue of redistribution and examine which variable has the most frequent connections to such

variables. There are five variables in the analysis that are about redistribution: transfer, poor_demand, rich_duty, state_gap, and state_min. Among the 30 variables included in the analysis, the one that has the largest number of connections to these variables is prosperity, which has an association with four out of the five variables. Although, as shown above, the effect of prosperity is curious and does not exhibit a clear, consistent logic, it has a strong influence in determining people's attitudes toward economic redistribution. The prosperity variable is followed by two causal attribution variables (cause_poverty and cause_rich 2), which affect three out of the five variables. This suggests that lay macroeconomic theory and causal attribution are the most important ideas in reasoning about distributive justice.

Conclusion

This chapter aimed to analyze the patterns of people's lay theoretical understanding and beliefs about inequality and distributive justice in today's China, using a novel methodological approach. Instead of relying on the conventional distinction between practical and theoretical reasoning or focusing on some anti-utilitarian concept of reasoning, this study discusses an alternative framework that distinguishes two functions of reasoning, namely sensemaking and decision-making, and proposes "lay theories" as the most important common element shared by the two functions of reasoning. Lay theories process perceived information into ordered, predictable, meaningful, and theoretical interpretation of the social world and serve as a cognitive and motivational template for making decisions. This study uses the concept of lay theoretical reasoning for examining the patterns of attitudes and beliefs about inequality and distributive justice in today's China.

The study, employing Bayesian network analysis, presents several intriguing findings. First, in contrast to the simulated samples of belief network presented in Figure 4.1, most objective variables have a very limited direct influence on attitudes and beliefs about inequality and redistribution, including subjective variables that reflect individuals' objective conditions, such as perceived relative living standards and satisfaction with one's living standards. This finding suggests that individuals' objective conditions mostly have indirect, rather than direct, influence on individuals' ideas and beliefs through the chains of lay theoretical reasoning. Secondly, causal attribution of wealth and poverty, such as meritocratic or external attribution of wealth and poverty, turns out to be largely independent of objective social backgrounds, including one's household income. However, such attribution is significantly influenced by one's direct experiences, such as using the Internet (→ external attribution of wealth), experiencing upward mobility (→ meritocratic attribution of wealth), or being satisfied with one's living standards (→ meritocratic attribution of poverty). This result tells us that the psychology of causal attribution is more strongly shaped by individuals' distinct life experiences than their income. It shows that there are more diverse channels through which individuals with low income can come to tolerate or justify the high level of inequality in society, and various kinds of injustices (e.g., interactional injustice and procedural injustice) that people experience can have stronger effect on individuals' sense of injustice and moral outrage than distributive justice. It is also found that internal causal attribution of wealth and poverty is significantly associated with some egalitarian attitudes and anti-egalitarian attitudes at the same time, which suggest that the relationship between individuals' lay theories of causal attribution and moral reasoning about economic redistribution is strongly contingent on contexts, and the style of individuals' sensemaking and decision-making varies across different contexts of distributive justice.

On the other hand, intriguing patterns are found with regard to macroeconomic lay theories. The Bayesian network analysis shows that people's opinion about whether income inequality is necessary for national prosperity has a negative relationship with their income, conditioning on other factors and opinions, and has a positive relationship with egalitarian attitudes with regard to redistribution or social protection. This means that people with lower income are more likely to think that inequality is necessary for China, and people with stronger support for such necessary inequality are more likely to hold egalitarian beliefs. Belief in free market economy also shows an interesting pattern; it is positively associated with individualistic attribution of wealth and poverty, but, on the other hand, it is also positively associated with some egalitarian views on inequality.

On the whole, these results suggest three important conclusions. The first conclusion is that the way people reason about various issues of inequality and distributive justice does not have a deterministic relationship with objective variables, particularly income. Income does have a direct effect on some small number of beliefs, but the majority of beliefs and attitudes about inequality are not directly influenced by income. Some other subjective experiences related to one's income are also not very significant factors in affecting the overall belief network. This result tells us that the opinions and predictions of scholars and experts on Chinese society are based on more or less inaccurate model of individuals' thinking and reasoning about inequality. Individuals' beliefs are more strongly affected by their own distinct logic and patterns of sensemaking and judgment about the social world and that cannot be effectively captured by their absolute levels of income or objective socioeconomic conditions (unlike the implicit assumptions in many commentaries on Chinese society).

The second conclusion is that, in most people's minds, seemingly conflicting ideas can coexist with one another, which looks like an inclusive plaza of ideas and lay theories. Individuals' lay theoretical understanding of the social world often follows commonsense understanding, in which normative but logically inconsistent statements (e.g., "Inequality is necessary for development" and "We should reduce inequality") can exist together (Converse 1964; Garfinkel 1967). This characteristic of individuals' reasoning has not been specifically emphasized in past literature except for a limited number of studies on "split consciousness" or "compartmentalized beliefs" in individuals' attitudes toward inequality (see Chapter 2). As both 1) the relationship between causal attribution and moral reasoning about redistribution and 2) the relationship between lay macroeconomic theory and moral reasoning about redistribution show, individuals usually have lay theoretical reasons to be both critical and also tolerant of inequality, and this is why the public, perhaps not only in China³⁶, does not show extreme attitudes toward inequality.

Finally, the results show two different kinds of images of a "lay theorist" at the same time. The first image tells us that individuals are not very good lay theorists. The significant relationships between conflicting ideas and the disconnection between one's objective conditions and various distributive justice attitudes show that. But on the other hand, there is a second, somewhat subtle, image that emerges from carefully interpreting the results of empirical analysis, which is that individuals are consciously or unconsciously *heavily* engaged in sensemaking and decision-making. Although the aggregate patterns sometimes show some illogical and paradoxical patterns, such patterns may be actually the result of the convoluted complexity of individuals' tacit sensemaking about how society and economy works and

³⁶ For example, Page and Jacobs (2009), from their analysis of Inequality Survey data, found that majorities of Americans embrace the philosophy of conservative egalitarianism.

decision-making process (i.e., forming an opinion or arriving at a conclusion about a specific distributive justice issue) that considers multiple factors at the same time. So although the overall attitudinal dependency structure shown in this chapter displays the first kind of image at a superficial level, once we seriously consider what kind of sensemaking and decision-making processes occurs under the superficial connections among attitudes, we can actually realize that individuals are complex, rather than “good” or “poor,” lay theorists.

Chapter 5

Conclusion

“Not every revolutionary situation leads to revolution.” – V. L. Lenin

Empirical analysis of attitudes, opinions, and beliefs has a long tradition in social science, dating back to the studies of early sociologists and psychologists who tried to measure people's explicit attitudes and opinions (e.g., Thurstone, Likert, and Gutman). On the other hand, experimental psychological studies have examined the more or less hidden domain in the human mental process where implicit, unconscious attitudes and biases influence our opinions and behaviors. Although studying explicit or implicit attitudes reveals a large part of our attitudinal patterns and belief system, there is a large area in our attitudes and beliefs that is neither completely explicit/conscious nor completely implicit/unconscious. That gray area includes the ideational structure of attitudes, cognitive and attitudinal schema and frames, cultural models of motives, and the underlying lay theoretical understanding of the social world. In examining popular perception of and attitudes toward distributive justice in today's China, this dissertation examined that area by employing social survey data and novel theoretical and methodological approaches.

One of the central beliefs that undergird participatory politics is the existence of an institutionalized reciprocal relationship between public opinion and social policy. Ideally, the aggregate public opinion sends out a signal to adjust the direction of policy movement, thereby imposing pressure on politicians and policymakers to meet popular demands. As Manza and Brooks (2012) maintained, in various branches of political sociology concerning policy making, state formation, and political conflicts, even though they often did not explicitly focus on public

opinion, the operation of public opinion is presupposed as an important causal force in their theoretical models and empirical research. However, those studies did not specifically look into various characteristics and operating mechanisms of individuals' attitudes and belief system or empirically examine how people's political attitudes or ideologies are structured. By providing a systematic and comprehensive analysis of individuals' beliefs and attitudes about inequality in China, this study contributes to a better understanding of popular attitudes toward inequality and discusses political implications for today's Chinese society. Particularly, it brings our attention to the relatively ignored and veiled mechanisms that underpin the psychology of inequality.

Based on my analytic framework, the empirical analysis of this dissertation focuses on three kinds of elements that govern the basis of our social action and cognition: the association of ideas, motivational tendencies shaped by political-cultural models of motives, and individuals' lay theories and sensemaking. The first empirical chapter examines the patterns of association in individuals' attitudes toward distributive justice, particularly focusing on the dimensionality of attitudes. Studying the characteristics of association of ideas has been an important research agenda in multiple areas, since Hume's philosophical thesis on human nature or Durkheim's explanation on how the idea of sacredness spans out and becomes contagious through the "association of ideas" (Durkheim 1995 [1912], p. 326). Sociologists and cognitive anthropologists interested in performing formal analysis of culture and meaning structure used various methods to measure and analyze the map of ideas, meanings, symbols, frames, and cognitive frames (e.g., Mohr 1998). Martin (2000, 2002), by extending and developing the concept of "constraint" in public opinion research in political psychology, discusses two aspects of the multidimensional space of beliefs: consensus and tightness. He contends that the movement of individuals' beliefs is bound to the dimensional constraint imposed by the social

space of beliefs. While his approach is very useful in understanding the social nature of attitudinal constraint in people's beliefs, it cannot be used to uncover the heterogeneity of individuals' beliefs and attitudes. My study aims to advance our understanding of the multidimensional social space of beliefs by showing the patterns of individual-level heterogeneity in beliefs about distributive justice. Its approach lies at the intersection between Durkhemian perspective, in the sense that it looks at the commonly shared moral system in society, and political psychological studies (Converse 1964; Zaller 1992) that show that the strength of attitudinal constraint varies across different groups in society.

The analysis shows two key findings. First, results produced by relational class analysis show that the multidimensional aspect of distributive justice principles is salient for the majority of people, indicating that various issues of distributive injustice are structured in such a way that they are often independent of one another, while such dimensionality is significantly muted for others, who hold a well-organized, ideological belief system regarding distributive justice. Results from latent class analysis suggest that respondents can be largely divided into two groups of egalitarians and non-egalitarians, but when the result of relational class analysis is considered together, the absolute majority of egalitarians identified by latent class analysis actually belongs to the relational class with relatively weak attitudinal coherence.

If people's attitudes and beliefs are located in the multidimensional belief space of society, what does this weak attitudinal coherence tell us about the belief system in Chinese society? The results seem to highlight the influence and importance of macro-level political institutional condition. In a democratic multiparty system, there exists a wide array of political and cultural signals that sort diverse issues into opposing clusters of issues and ideas, whereby people possess or construct attitudes reflecting the ideological orientation and issue preferences

of their party (Hetherington and Weiler 2009, p. 190). The ideological spectrum in China is not as structured as that of Western societies. Although there are ideological ideas that construct a political left and right in Chinese society, they are not as broad or salient as the ideological orientations of Western societies, which cover diverse domains, including the economic, political, moral, and social. Due to the lack of a multiparty system, the ideological packaging of ideas by elites is less frequent, and ideological structures are more fluid and adaptive in the rapidly growing and changing society. Such a political environment is not fertile ground for conferring strong attitudinal constraint to political attitudes. And in such a “belief space,” it would not be easy to find a cautionary sign that signals the imminent social upheaval triggered by the problem of inequality.

The focus and approach of the first empirical chapter that examined the associative patterns of belief systems are shaped by the so-called “cultural turn” or “cognitive turn” in sociology that discovered the importance of the role of meanings, symbols, language, frames, schemata, and repertoires. However, I contend that in sociology there has been an overemphasis on the cognitive origin of social action, values, and culture, and this focus on cognition needs to meet a motivational turn in order to obtain a more accurate and balanced view on the mechanism of social action and cognition. Although the role of motivation in social action was treated as an important engine of action by some early mid-20th-century theorists like Talcott Parsons, due to the theories’ problematic assumptions and implicit reliance on psychoanalytic theory, the problem of motivation has been either simply ignored or regarded as an inappropriate subject of sociology, which is also partly due to sociology’s inclination to prefer a top-down framework in explaining human behavior. However, thanks to new findings in cognitive and social psychology, this kind of implicit view that the cognitive aspect of our internal environment can

be analytically detached from the affective domain, such as emotion, feelings, sentiments, and motivation, is gradually regarded as an inaccurate, obsolete view of the human mental process. It is now demanded that our model of social action requires incorporating the affective domain into theorizing and integrating the social and the mental. However, there have been only very limited efforts in sociology to achieve that goal (Ignatow 2007; Vaisey 2009; Vaisey and Frye, forthcoming; Willer 2009), and there are few studies on the role of motivation and how it takes its concrete form under the influence of cultural contexts.

The second empirical chapter tackles this problem, and investigates the role of two kinds of psychosocial dispositions, as culturally shaped motivational tendencies, that affect individuals' attitudes toward redistributive policies. In doing so, it shows how regional cleavage and educational inequality affect the social distribution of such psychosocial dispositions in Chinese society. Specifically, the study focuses on two kinds of psychosocial dispositions – authoritarianism and social dominance orientations – which are regarded as motives related to individuals' desire for order/structure and need for avoidance of threat. The study finds that authoritarianism and social dominance orientation, as political-cultural psychosocial dispositions, bring about more tolerant attitudes toward economic inequality, and the difference between rural and urban in the patterns of psychosocial dispositions is attributable to the highly significant effect of education. The chain of influences from regional inequality to educational inequality to attitudes toward economic redistribution results in relatively more tolerant views on inequality in socioeconomically disadvantaged rural areas and among the less educated population.

Finally, the third empirical chapter sheds light on what has been relatively understudied in sociological literature: the problem of reasoning. Although we are constantly engaged in the mental action of thinking, planning, understanding, deducing, inducing, and making decisions

using our theoretical, speculative reason, sociological literature has not shown sufficient interest in illuminating the characteristics of such a kind of reasoning. Drawing insights from theories on sensemaking, the ethnomethodological view on commonsense reasoning, and particularly studies on lay theories, my study captures the most important aspect of actors' reasoning as their theoretical understanding and explanation of the social world, which imbue individuals' perceptions and experiences with order, predictability, and a feeling of control, and provide an epistemic basis for decision-making. As with the case of association and motivation, how individuals think and reason is dependent upon their "thought communities" (Fleck 1935; Zerubavel 1997). Employing Bayesian network analysis as a tool for uncovering the general pattern of lay theoretical reasoning, my analysis shows several important findings on the characteristics of individuals' attitudes toward inequality and describes the structure of the belief space of their thought communities.

First, it finds that the effect of objective factors such as one's income or education on attitudes toward inequality occurs mostly in an indirect way. Income has a significant direct effect on only a handful of beliefs or attitudes, while such an effect creates a ripple effect in one's entire belief system so that the impact of income on attitudes is realized through weakened, indirect effects. Second, it is found that the belief in the idea that inequality is necessary for the prosperity of the country plays the most influential role in determining attitudes toward economic redistribution. This finding is a particularly important and suggestive one, since it is found that such a belief in "necessary inequality" is associated with egalitarian attitudes, particularly regarding assisting the poor. Also, people's belief in free market is, on the one hand, associated with individualistic attribution of inequality but, on the other hand, significantly associated with some egalitarian views on inequality. Combined with other findings, these results

tell us that our assumptions and models on how people think about inequality and how they carry out their reasoning to hold certain attitudes toward distributive justice are not necessarily accurate once we actually look into the patterns of their reasoning. My analysis shows that the “social mindscape” of lay theoretical reasoning on inequality and distributive justice entails the coexistence of mutually conflicting ideas bound together by commonsense belief or pragmatic consciousness, and in such a process, demographic variables often do not exert a great influence. The results suggest that the overall characteristic of people’s mentality regarding various issues of distributive justice can be summarized as “kludge”: the logic of mind and belief system operating in a somewhat haphazard, clumsy, inconsistent, and poorly matched way.

Overall, the messages of these three analyses can be summarized as following. First, for the majority of ordinary people, their belief system concerning various faces of distributive justice is constructed in a way featuring weak association, lack of coherence, and dimensionality. Focusing on the *cognitive* features of distributive justice attitudes, the analysis suggests that most people do not possess ideologically well-organized attitudes toward the problem of inequality and distributive injustice. Second, there are psychosocial dispositions of conservative orientations that are strengthened among individuals with lower socioeconomic status; the distribution of such dispositions among people is shaped by institutional backgrounds such as household registration system and regional educational inequality. By examining the *motivational* bases of political-cultural attitudes toward inequality, this finding points to the existence of conservative psychological tendencies that suppress critical attitudes toward inequality, justify the system, and legitimize the hierarchical order of society. Finally, analysis of the patterns and characteristics of *reasoning* shows that people’s thoughts and understanding on inequality and distributive justice include heterogeneous and sometimes mutually conflicting

ideas, showing that people in general have both conservative and liberal ideas together in their lay theoretical understanding and evaluation on inequality. This finding suggests that although people may find the large income gap and wealth inequality uncomfortable, unfair, or unjust, at the same time, they also tend to think that such economic disparity is more or less inevitable and even necessary. Collectively, these three findings suggest to us that although the Chinese public may think that inequality is a critical social problem that needs to be addressed, it will be very unlikely to see an explosion of social discontent fueled by people's insuppressible anger towards the injustice of the wealth gap in China.

Indeed, this research is not free from theoretical and empirical limitations. While the overarching analytic framework (AMR) is based on the idea that association, motivation, and reasoning are intricately intertwined with one another so as to give rise to our social action and cognition, each of my empirical analyses dealt with each component separately rather than looking at their joint effect. In my future studies, I plan to carry out experimental analyses that examine the effect of three factors at the same time. Another limitation comes from the fact that this research relies on social survey data only and cannot show what survey data do not tell us. The analysis does not show us individuals' narratives or experiences concerning inequality and injustice in society, and the questions employed in the surveys may not be able to accurately measure or reflect people's actual sentiments, emotions, and mood about inequality. As Bourdieu (1979) argued "public opinion does not exist," the assumption that public opinion as presumed and designed by survey polls exists and is shared among people with same meaning structure is not warranted. Therefore, qualitative data and evidence are required in order to confirm or supplement the findings produced by mainly relying on quantitative research. Finally, throughout the analyses presented in this dissertation, there is always a lingering question of "comparison."

Because this dissertation solely focused on the Chinese case, there always remains the question of how it is different from the case of other societies. Using the methodological techniques used in this thesis, I will carry out extensive cross-national comparisons in the patterns of association, motivation, and reasoning in people's beliefs about inequality in different societies.

In general, the conclusion of this thesis is in line with that of past studies that showed rural citizens' relatively tolerant attitudes and Chinese citizens' relatively generally less critical attitudes compared to other countries (Whyte and Han 2008; Han 2009; Whyte 2010). This conclusion presents a cautiously optimistic prospect for the primary goal of today's China, namely the maintenance of social stability. The results suggest that the relatively disadvantaged groups in Chinese society will not engage in a collective action to subvert the status quo in the immediate future.

This prognosis, however, can be only a tentative one. For example, past studies suggest that psychosocial dispositions such as authoritarianism and social dominance orientation are subject to change through situational cues, and moreover, they have opposing elements in their internal dynamics; the psychological energy that constrains authoritarian attitudes to obedience and submission can turn its current to converge on *anti*-authoritarianism (Perrin 2005), and the SDO of subordinate groups can transform from the legitimization of intergroup hierarchy to hostile discrimination against dominant groups. Thus, although the findings of this dissertation suggest that today's Chinese society is not a "social volcano" when it comes to the problem of distributive justice, it should be noted that the social psychology of inequality and justice may show different dynamics in the future.

Moreover, the fact that inequality may not be the "real" problem suggests that the way political leaders in China rein in public opinion is misguided. Contrary to the worries of the

leaders who place heavy focus on reducing inequality to maintain political stability, distributive injustice is not a likely key source of instability, but procedural, legal, religious, and interactional injustices that directly hurt the basic rights and moral feelings of people are. Thus the key political message of my study is that if the government places its primary efforts on curbing inequality as a means to gain legitimacy and political support for the authoritarian state, it will likely to face a politically undesirable consequence, because it indicates that the political leadership is incapable of solving other more important kinds of injustice that have a direct and stronger impact on ordinary people. It is worthwhile to remember that even Marx was not a defender of distributive justice. In contrast to the commonsense perception, inequality in wealth or income was not Marx's central concern; his fundamental interest was on production rather than redistribution and on how to *humanize* economic activity (see Fleischacker 2004). How to humanize the so-called "capitalism with Chinese characteristics" will require much more than simply making gestures of reducing the income gap; as shown in the introductory chapter, most direct causes of hundreds of thousands of mass protests come from violation of natural human and legal rights and from chronic corruption and abuse of power by the authorities.

Thus, if the Chinese government intends to alleviate the popular feelings of injustice, it should focus on how to fix harder problems that are related to human, economic, and political rights of ordinary people, such as mistreatment of factory workers, unfair compensation for appropriation of people's properties, officials' widespread rent-seeking and corruption associated with those problems, and so on, most of which happen at the local level, rather than the nationwide income gap. However, any careful observers who are familiar with the *realpolitik* in China will know that such a task is a very tall order. The large population size, the sheer distance between central and local governments, the structure of the decentralized authoritarian state, and

the complex local dynamics and social networks all together multiply the difficulty of correcting deeply institutionalized forms of injustices. The social and political stability of China will be determined by how the political leadership deals with these various faces of justice and secures its “moral standing” (Mehta and Winship 2010) in the midst of rapid social, political, and economic transformations of this giant country.

Appendix A: Relational Class Analysis

The first step of RCA starts with computing a measure of relationality for each pair of respondents. For a dataset that has K variables, relationality between observations i and j can be formally presented as following:

$$R_{ij} = \frac{2}{K(K-1)} \sum_{k=1}^{K-1} \sum_{l=k+1}^K (\lambda_{ij}^{kl} * \sigma_{ij}^{kl})$$

where:

$$\sigma_{ij}^{kl} = 1 - \left| |\Delta X_i^{kl}| - |\Delta X_j^{kl}| \right|$$

is the size of relational similarity between observations i and j for two variables k and l ,

$$\Delta X_i^{kl} = X_i^k - X_i^l$$

is within-observational distance between variable k and l , and

$$\lambda_{ij}^{kl} = \begin{cases} 1 & \Delta X_i^{kl} * \Delta X_j^{kl} \geq 0 \\ -1 & \Delta X_i^{kl} * \Delta X_j^{kl} < 0 \end{cases}$$

is a coefficient that determines the sign of relational similarity for computing relationality.

This process produces relationality R_{ij} , bounded by +1 and -1, that indicates to what extent a pair of respondents exhibit similar relational patterns in their responses. Greater absolute values of relationality (i.e., relationality close to +1 or -1) between two observations indicate that they share similar underlying schematic dimensions in their responses, and relationality close to zero denote that their responses are based on different understanding on the issues. After relationality is computed, RCA creates an observation-by-observation matrix in which each cell contains relationality, bounded by -1 and +1, between each pair of observations. Because RCA is interested in the absolute size of relationality, it transforms relationality measures by their absolute values. Then, the bootstrapping method is used to test the statistical significance of relationality values, and statistically insignificant ones are removed and set to zero. This process produces a relationality matrix that shows statistically significant relationality measures between each pair of observations. Next, in order to detect community structure from the

matrix, which is basically a network of observations based on relationality ties, a graph partitioning method is used to find groups of individuals that are relatively strongly clustered by relationality. RCA uses the spectral partitioning method using eigenvalues (Newman 2006) to partition the graph and find cohesive groups. Respondents in a same subgroup share a relatively similar relational pattern of responses that is distinct from other subgroups. For full explanation on technical and theoretical details of RCA, see Goldberg (2011).

Appendix B: ISSP Survey Items Used for Relational Class Analysis and Latent Class Analysis

		Item Wording	Scaling	Mean (SD)
Equity/ Merit	V6	To get ahead in life, how important is coming from a wealthy family?	1: Very important, 5: Not important at all	2.15 (1.00)
	V10	To get ahead in life, how important is hard work?	1: Very important, 5: Not important at all	1.80 (.78)
	V11	To get ahead in life, how important is knowing the right people?	1: Very important, 5: Not important at all	1.89 (.83)
	V12	To get ahead in life, how important is having political connections?	1: Very important, 5: Not important at all	2.39 (1.05)
	V17	To get all the way to the top in China today, you have to be corrupt.	1: Strongly agree, 5: Strongly disagree	3.16 (1.11)
	V18	In China, only students from the best secondary schools have a good chance to obtain a university education.	1: Strongly agree, 5: Strongly disagree	2.74 (1.07)
	V19	In China, only the rich can afford the costs of attending university.	1: Strongly agree, 5: Strongly disagree	2.72 (1.06)
Equality/ Need	V32	Differences in income in China are too large	1: Strongly agree, 5: Strongly disagree	1.73 (.71)
	V33	It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.	1: Strongly agree, 5: Strongly disagree	1.93 (.79)
	V34	The government should provide a decent standard of living for the unemployed.	1: Strongly agree, 5: Strongly disagree	1.86 (.69)
	V35	The government should spend less on benefits for the poor.	1: Strongly agree, 5: Strongly disagree	2.74 (1.24)
	V36	Do you think people with high incomes should pay a larger share of their income in taxes than those with low incomes, the same share, or a smaller share?	1: Much larger share, 5: Much smaller share	2.11 (.77)
	V37	Generally, how would you describe taxes in <country> today for those with high incomes? Taxes are...	1: Much too high, 5: Much too low	3.40 (.86)
	V38	Is it just or unjust – right or wrong – that people with higher incomes can buy better health care than people with lower incomes?	1: Very just, definitely right, 5: Very unjust, definitely wrong	2.40 (1.03)
	V39	Is it just or unjust – right or wrong – that people with higher incomes can buy better education for their children than people with lower incomes?	1: Very just, definitely right, 5: Very unjust, definitely wrong	2.31 (1.04)
	V54	First, what type of society is China today – which diagram comes closest?	(Diagrams of stratification patterns: 1: the most unequal, 5: the most equal)	2.16 (.96)
Self- Interest	V21	Would you say that you earn...	1: Much less than I deserve, 5: Much more than I deserve	2.33 (.72)
	V53	Is your pay just? We are not asking about how much you would like to earn - but what you feel is just given your skills and effort.	1: Much less than is just, 5: Much more than is just	2.36 (1.91)
	V44	In our society there are groups which tend to be towards the top and groups which tend to be towards the bottom. Below is a scale that runs from top to bottom. Where would you put yourself now on this scale?	1: Bottom, 10: Top	4.65 (1.91)
	V66	Most people see themselves as belonging to a particular class. Please tell me which social class you would say you belong to?	1: Lower class, 6: Upper class	2.66 (1.19)

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